

PC CD-ROM ■ 3DO ■ PlayStation ■ Saturn ■ 32X ■ Ultra 64 ■ Jaguar ■ Arcade ■ On-Line

# NEXT GENERATION

The **future** of **interactive** entertainment

May 1995

## Ultra 64

the **story**  
so **far**

Nintendo's 64bit collaboration with

Silicon Graphics is shrouded in secrecy.

**NEXT Generation** does the detective work

volume **one**

# 05

This *Avenger* illustration was generated on a Silicon Graphics Indy workstation with Alias *PowerAnimator* software. SGI and Alias are two members of Nintendo's Ultra 64 "Dream Team," an alliance that threatens to eclipse its 32bit rivals. Page 36

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Can images such as this  
stunning SGI/Alias-generated  
character be reproduced on Ultra 64?  
The gaming world will find out this fall



# He who laughs last, laughs longest

On August 23, 1993, **Nintendo** unveiled its plans for **"Project Reality."**

The single most powerful videogame company in the world announced an alliance with **Silicon Graphics** to produce a 64bit gaming platform based on the power of SGI's computer-graphics workstations. This singularly impressive piece of vaporware would eclipse the 32bit plans of Sony and Sega — **if they could get it to work.**

Nintendo maintained that Project Reality would be completed, on schedule, in 1995.

## **And then it all went quiet.**

Privately, Nintendo and Silicon Graphics set about their task. Gathering around them an elite group of hardware and software partners to form videogaming's **"Dream Team"** (Nintendo's words, not ours), Nintendo's Project Reality evolved into Ultra 64. But other than the trailblazing launches of **Cruis'n' USA** and **Killer Instinct**, Ultra 64 has lingered in the shadows — leaving PlayStation and Saturn to bask in the limelight of public anticipation.

## **All this will change this fall.**

But in the meanwhile, the only information on the subject of **Ultra 64** has to be garnered from a paper trail of low-key press releases, behind-closed-doors demonstrations, and occasional slips from those privy to Nintendo's plans. Piecing it all together requires some good old-fashioned **detective work.**

What **NEXT Generation** found out adds up to the whole Ultra 64 story as is known today. And it's all here, starting on page 36.

# NEXT GENERATION

May 1995

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Parts of NEXT Generation scratch the back of EDGE (a UK-based magazine from Future Publishing) and vice versa. Love to Jane, Cori, and Jez. Goodbye Deanna! Au revoir, Laura! Onward, upward, bigger...



## Can Sony handle the PlayStation?

PlayStation's hardware isn't in question, but does Sony know what to do with it? Has the new kid on the videogame block bitten off more than it can chew? Or is cash all it takes? Sony's boss Steve Race explains why it's not what you do, but the way that you do it



## Ultra 64: the story so far

While the gaming world looks at Saturn and PlayStation, Nintendo's collaboration with Silicon Graphics is quietly evolving from "Project Reality" (a mere code name) into the real deal. NEXT Generation separates the facts from the fiction for the story so far

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## Apple: the ripe stuff

The Apple story is a real-life slice of the American dream; an inspirational start-up that took on the corporate big boys and won (well, some of the time). But now the company is growing up, and its new game/multimedia station could mean crunch time for Apple





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Sega Saturn to launch in US on September 2 • Nintendo satellite beams games to Japanese gamers • Revolutionary arcade system unveiled • Coin-op show dominated by Sega and Namco



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## Alphas

A five-page special preview of Sega's *Daytona USA* for the Saturn kicks off an alpha section focused on the latest videogame releases from Japan and home-grown PC talents



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## Finals: 54 game reviews

If you tell it like it really is, hopefully readers like you will tell your friends how NEX T Generation really is. It's our plan for success, and it's been working so far

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A talk with the man launching the US PlayStation; Sony Computer Entertainment's Steve Race

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### Ultra 64: the story so far...

Never mind the hype, here's the definitive NEX T Generation report on Nintendo's 64bit console

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### The ripe stuff

From bedroom innovation to boardroom ingenuity, Apple's history has been a triumph of individualism. And now it's created a game machine

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### Alphas

Previewed here are next generation games in development from around the world, featuring: *Daytona USA* (Saturn); *Prisoner of Ice* (PC); *Panzer Dragoon* (Saturn); *Kingdom* (PC); *Jumping Flash* (PlayStation); *Secret of Evermore* (SNES); *MechLords* (PC); *Cyber Command* (Arcade); *Chrono Trigger* (SFC)

## 88 rating

### Finals

A whopping 54 new games reviewed, rated, and arranged in alphabetical order for your perusal. This month features: *Raiden* (PlayStation); *Immercenary* (3DO); *Burn Out* (Jaguar); *Tempo* (32X); *King of Fighters* (Neo-Geo); *Descent* (PC); *Earthworm Jim: Special Edition* (Sega CD); *Coach K College Basketball* (Genesis); and *Kirby's Dream Course* (SNES)

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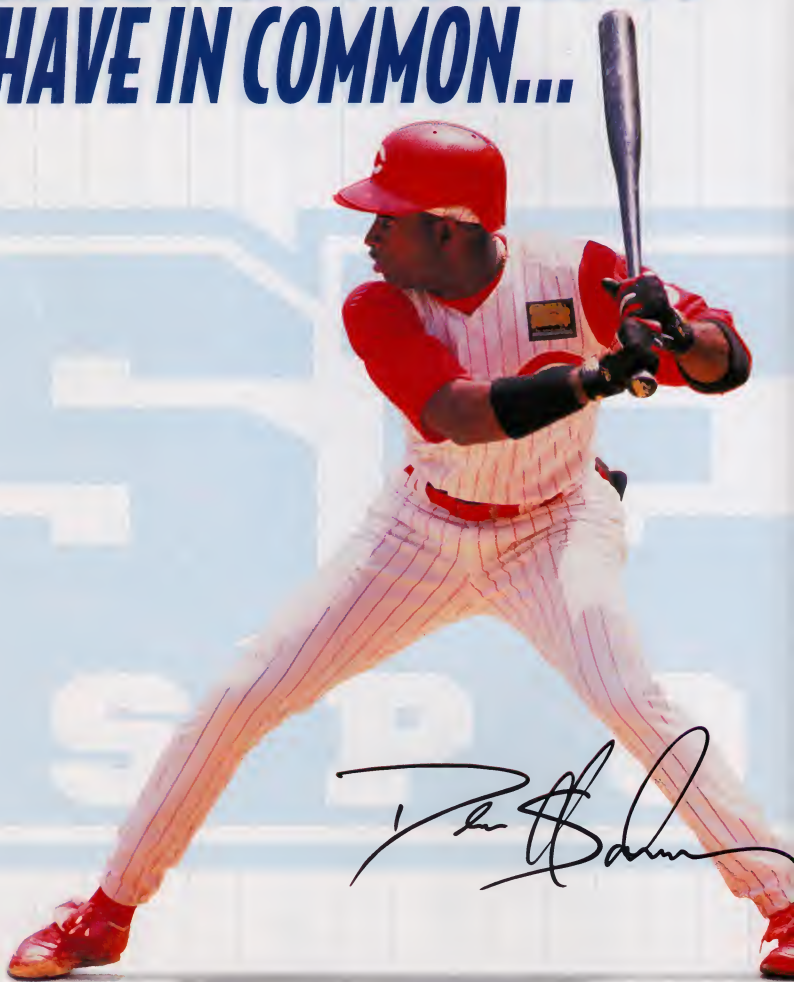
Looking for that big break into the gaming business? These three pages of help wanted ads could help

## 112 ending

### Next month...

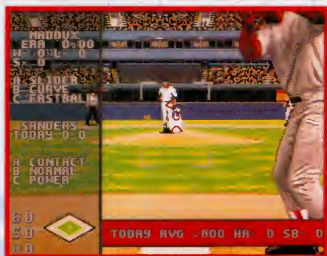
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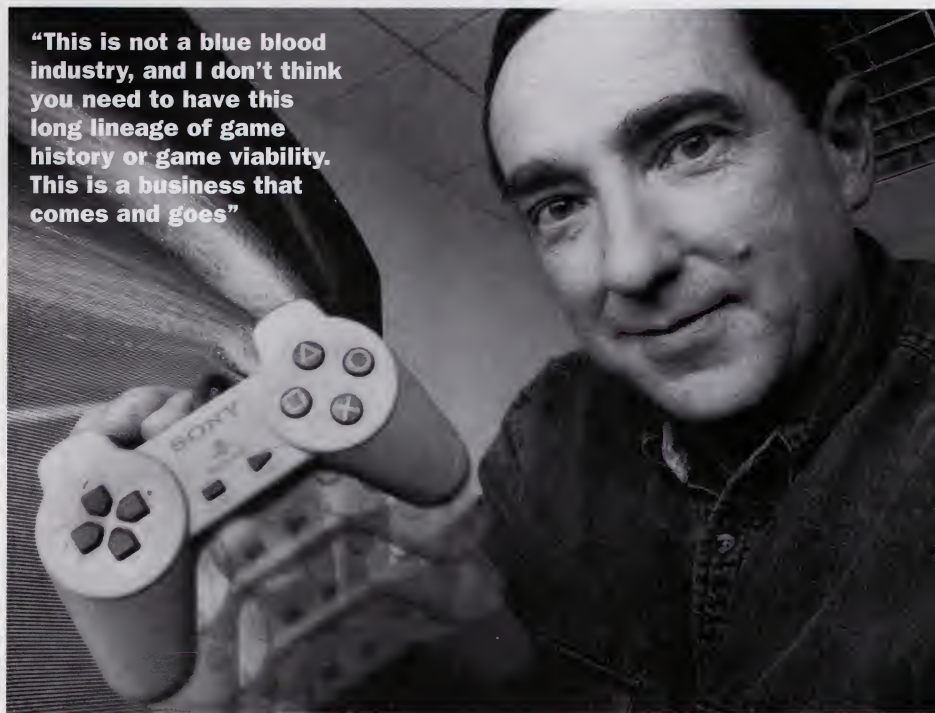
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**Sony's PlayStation** is the hottest new game machine on the block. End of argument. But tempering the universal praise of Sony's hardware are nagging accusations of corporate arrogance, gaming ignorance, and a naivete that could prove fatal. **NEXT Generation** met with Sony Computer Entertainment's CEO, Steve Race, to find out...

**"This is not a blue blood industry, and I don't think you need to have this long lineage of game history or game viability. This is a business that comes and goes"**



Can **Sony**  
**handle**  
the **PlayStation?**



**E**ver since Nintendo redefined the concept of "a healthy profit" with the world-conquering NES, Sony has been circling the videogame industry like a hungry shark. Thwarted in the early 1980s as part of the ill-fated MSX consortium and dumped by Nintendo at the 11th hour from a joint venture to produce a CD-ROM add-on for the SNES, the \$46-billion corporate predator is now bearing its teeth for a third time.

And this time Sony has the hardware to match its ambition. But does Sony understand enough about the gaming industry to maximize PlayStation's potential? Does it know the difference between a good game and a profitable game? Does the company really realize why the difference is so crucial?

Steve Race is president and CEO of Sony Computer Entertainment (SCE) in the US. He's the man in charge of PlayStation's assault on Sega's and Nintendo's empire. **NEXT Generation** met with him in February to discuss launch plans, the competition, and (ahem) BetaMax.

## Why now?

**NG:** Why didn't Sony enter the videogame arena five years ago at the dawn of 16bit gaming?

**Steve:** As you obviously know, we did take a look at getting into the 16bit category in about 1988 with Nintendo, and that deal unraveled for a variety of reasons.

I think now is a good time simply because there is a large, basic change across the waterfront; there's a change of architectures and a change of medium. Not only are we moving from 16bit into the next generation systems, but (with the one possible exception in the form of Nintendo) we appear to be moving away from masked ROM onto CDs, and there's a lot of good characteristics associated with the CD side of the interactive entertainment business.

**NG:** The game industry, as it evolves, is looking more and more like Sony's home turf every day. CD-based games feature video and music, so is it now a little easier for Sony to get involved?

**Steve:** Yes. And we do a lot of consumer research and we ask "Who do you think is going to bring out the next generation of game hardware?" Typically, they would round up the usual suspects which are Sega and Nintendo and then, unprompted, the next company to come out is Sony. I think that's because of our audio, digital, and video heritage.

**NG:** As you say, this isn't Sony's first venture into the gaming business. What became of the deal with Nintendo to make a SNES CD-ROM add-on?

**Steve:** As I understand it, Sony and Nintendo had reached some sort of agreement to do a CD-ROM based system whereby Sony would, in effect, have rights to produce a certain portion, if not all, of the software. Nintendo backed away from it at the 11th hour. As a matter of fact, at CES in 1991, there were two announcements, one by Sony confirming, and one by Nintendo denying.

Since that date we've had a long and abiding

interest in the videogame category. Since the deal with Nintendo didn't come to fruition we decided to put games on a back burner and wait for the next category. Generally, the gaming industry has a seven-year product life-cycle, so we bided our time until we could get in on the next cycle and that's where we are right now.

**NG:** But could Sony be too late? Many people argue that the 16bit videogame boom was just teenage fashion and that there may be no mainstream market for 32bit game machines.

**Steve:** There are always those nagging doubts, especially when you're trying to make a buck the size that someone is making in this industry. However, if you go back and take a look, the videogame industry has been around for well over a decade. Each generation of hardware tends to sell more and more units. We're talking now about 16bit systems that have sold upward of 30 million units domestically in the United States. That's about 100% penetration of your cohort group. I don't think that that's a fad or a trend because the penetration is too deep.

There's a famous quote by Charles Revlon [the cosmetics tycoon] who, upon asked if he sold cosmetics, replied "No, I sell hope." Similarly, I think that what we provide is entertainment value, and we do that in the form of videogames. We measure ourselves in hardware and software, but really what we sell is the greater experience of entertainment. There is always a market for that.

## Why a game machine?

**NG:** As the world embraces the concept of "multimedia," Sony — a true multimedia company, and perhaps the company best equipped to produce a multimedia workstation — releases a pure game machine. Why?

**Steve:** We designed PlayStation to be the best game player we could possibly make. Now, a game player really is a multimedia machine (although it may be something of a wolf in sheep's clothing). But we're positioning PlayStation as a game machine because that's what sells right now. We are a multimedia company in that we make audio, we make video, we make hardware, we make software — and all of these are combined in games. Games really are multimedia, no matter what we want to call it.

The conclusion is that PlayStation is a multimedia machine that is positioned as the ultimate game player.

**NG:** Which is the position that both 3DO and CD-i took far too long to adopt. Both of those companies started off as multimedia machines, didn't sell, and are now both scraping out a living as game machines.

**Steve:** Around here we call 3DO and CD-i the



Three years in development, Sony's PlayStation is the \$46 billion corporation's weapon against Sega and Nintendo



Steve Race is president of Sony Computer Entertainment. An alumni from Atari in the early '80s, Race also recently worked with Sega to enhance its product marketing options

**"There are always those nagging doubts, especially when you're trying to make a buck the size that someone is making in this industry"**

Swiss Army Knives — they're a little bit of everything to everybody, but not one of their attributes is very good. I mean they have a knife, a fork, and spoon, but is that a good way to eat your meal? So far the public has said no. By and large, the product that is selling for them is games. They may want to call it "software," but the consumers are telling us they don't care what it's called, they just want to play games.

**NG:** You say PlayStation may be a wolf in sheep's clothing. So is PlayStation just one small part of a larger Sony agenda?

**Steve:** Yes. Sony's agenda is to be the pre-eminent provider of entertainment hardware and software on a worldwide basis. And PlayStation is one element of that goal.

Whether PlayStation's technology morphs into a set-top controller box, I don't know yet. It's already morphed a little bit away from just the home version in that it's being used as an arcade board. It's being used as the basis of Namco's Tekken arcade product and so now, for the first time, we have the ability (and I know this is a massively overused statement) to bring that arcade experience home.

So this is a very powerful piece of hardware we have here, and what else it morphs into, I think the public will tell us. We're looking at a variety of things, and we know that it has capability above and beyond just games.

## Countdown to launch

**NG:** Saturn is outselling PlayStation in Japan, despite a higher price tag. What's the story here?

**Steve:** Sega launched its product November 22, 11 days before we launched PlayStation on December 3 in Japan. Our best numbers show that we sold 300,000 units in less than the first 30 days in the month of December. Our best estimate on what Sega sold is about 400,000 units. Now listen, there's a difference between selling into stores and selling through to the consumers. All PlayStation products were completely sold through, about 96% or 97%, from our own tracking. There's much anecdotal evidence that there were plenty of Saturns still available.

Also, the Sega product has been discounted in the market. Originally, the Sega product was marketed for ¥49,800 (\$535), it then dropped to ¥44,800 (\$482). In the street now it's ¥39,800 (\$428). What that tells you is that you decrease supply, or you decrease the price when the demand is not there. Simple economic theory would suggest that.

**NG:** Do you think that we can expect a similar situation when both machines launch in the US?

**Steve:** We know Sega and Saturn will be great competitors. Sega knows exactly what it's doing, it has done to Nintendo what no one else has been able to do; we don't discount Sega by any stretch of the imagination.

However, we have a significantly superior product. Not only do consumers tell us in side-by-side tests when we put the two systems together, but the development community tells us that it's much easier to use the PlayStation. The battle will be pitched very shortly on these shores, it's just started. The first skirmish was, in fact, completed in Japan. The battle will take a long time to evolve as to who will be the winner, but we have our feelings as to who it will be.

**NG:** So when will PlayStation launch in the US?

**Steve:** In the second half of '95.

**NG:** That's as close as you're going to put the date right now?

**Steve:** Yes, it is. The latter part of the summer is our best guess right now.

**NG:** Before the launch of PlayStation and Saturn in Japan, Sega and Sony played a complicated game of cat and mouse — release dates and prices were constantly changed and revised in an attempt to psyche out the other.

**Steve:** To see who would blink first, right.

**NG:** So is it likely that we will see a similar standoff between Sega and Sony when PlayStation and Saturn launch in the US?

**Steve:** We'll see similar sorts of things going on, yes. There are little jokes that we play on each other within the industry, and we'll see if we can't get Nintendo on the act as well.

**NG:** In some ways, the battle has already started. At the Winter CES in Las Vegas Sony played a practical joke on Sega by having napkins printed with "Sony welcomes Sega to WCES" distributed at Sega's own press function. Why do this to just Sega? And what message was it designed to send?

**Steve:** Well, first, Sega's big enough to get everyone's attention. Second, we have a lot of alumni in our organization from Sega, and its people have demonstrated a great sense of humor. All this was done totally in jest, it was sort of like, you know, "The Merry Pranksters Welcome The Beatles," from Tom Wolf's *Electric Kool-Aid Acid Test*.

So it was meant to be a little bit of a thumb in the eye, but an above-the-belt kind of shot, saying that this year we're here to play. And let's remember we're in a game industry, we're supposed to have fun, this is supposed to be a fun industry! And Sega has a great sense of humor, I think it took it that way. It was fun.



**"I think every company that's been around as**

**NG:** You think that afterward, back in the privacy of his hotel room, Tom Kalinske was laughing?

**Steve:** [laughs] I'm sure he was plotting what he was going to do to us at E! This business is about fun and games, that's what we sell.

**NG:** How much will PlayStation cost?

**Steve:** Again, we're still trying to determine that. A lot of it has to do with transport costs, and where the yen is, and all those sorts of things. We'll make an announcement at E!

**NG:** Is it about \$399? We guess that's realistic, and \$299 would be excellent, right?

**Steve:** Well \$399, I think there are problems at that price point. Take a look at what's happened to 3DO, take a look at what's happened to CD-i. CD-i is down to \$299 from \$399, depending on which systems you buy. But once again, we will announce the PlayStation's price at E! this May.

**NG:** What about a bundle deal? We've heard that *Ridge Racer* will be included, is this correct?

**Steve:** Well, I think if you take a look at the history of videogames in the United States, virtually every successful platform launches with a good packaged game.

**NG:** So what does this say about 32X?

**Steve:** [laughs] Yeah, that's why I said "every successful platform!" You can go back as far as the old Atari VCS time frame, it really started to take off when we put *Space Invaders* in it, or when we put *Pac-Man* in there. At least, domestically, in the United States, you have to put a product in there, and you have to lead with a very good product. Our intention is to do exactly that.

**NG:** In Japan, PlayStation's games cost 40% less than traditional cartridge games. Is that a trend we can hope to transfer into the US? Will games sell at \$35 to \$40?

**Steve:** We, Sony, don't set the game prices. We set our costs for the game producers, we set a royalty rate, and these sort of things. But it's the manufacturers themselves who wind up setting the game price. Our best guess is that PlayStation disks will retail for approximately what an A-grade 16bit cartridge game sells for now — ballpark.

**NG:** But that's unsporting — CDs cost a fraction of what cartridges cost to manufacture. You must have an influence on what your third parties do.

**Steve:** We have an influence in that we have to manufacture the product, and we charge a royalty rate. But we can't tell people what to charge.

## Sony, the company

**NG:** What would be your answer for people who point to BetaMax as a very high-profile example of how the mighty Sony can fail?

**Steve:** I think every company that's been around as long as Sony has skeletons in its closet. Beta was not a great win for this company — it was a clearly superior technology that was probably kept too insular, whereas VHS went out and licensed the technology. We played the game wrong at that point. With the PlayStation, we're not trying to make all of the software like Nintendo is trying to do for the Ultra 64, we've opened up. We have

**long as Sony has skeletons in its closet. Beta was not**

**a great win for this company. It was a clearly superior technology that was probably kept too insular. But we've learned from our mistakes"**

100 licenses in the United States and 270 licenses in Japan. We've allowed people to come in and to play on the PlayStation — and at a much more reasonable cost than has been done in the old days with Nintendo and Sega. So I think we've learned from our mistakes.

**NG:** How do you answer the charges that Sony — as a corporation — in both the music and the movie businesses, has tended to ride roughshod over content providers and, instead, simply purchase market share?

**Steve:** Well, first of all, I don't agree with the statement that Sony has ridden roughshod or, indeed, simply bought market share. We've had our difficulties in the past, but I think we've largely put that behind us and are moving on. It's a whole new generation of management down at the studio, and the music side of the business has been an enormously large and profitable portion of the Sony corporate structure. We have names like Barbra Streisand and Billy Joel and Mariah Carey. We have marquee names across the board. So I'm not sure that I would agree with that.

**NG:** George Michael would probably have something to say about that.

**Steve:** You could probably find someone to level his exact claim against any agency in the United States. We've stuck by lots of artists and we've played fair with a lot of artists.

**NG:** Perhaps a better — and more closer to home — example is the output of Sony Imagesoft.



By Sony's calculations, the North American videogame business currently exceeds \$5 billion. Sony wants the biggest slice of the pie, and "is poised to take the market lead"

**"Around here we call 3DO and CD-i the Swiss Army Knives — they're a little bit of everything to everybody, but not one of their attributes is very good"**

For the longest time the majority of its output was simply big-name licensed games with no attention paid to gameplay. It seemed that Sony didn't care about the quality of the game, it was just interested in making as fast a buck as possible.

**Steve:** Yes but, on the other hand, take a look at *Mickey Mania*, and take a look at some of the ESPN stuff... It's great product! Imagesoft has done a lot in terms of correcting its game: it's making better and better products. We've seen some of the stuff it is working on for PlayStation, and some of it is pretty cool.

**NG:** In PlayStation's infancy, would you rather sell one million bad games or 500,000 good games?

**Steve:** On a piece of software? I don't know, how much money do I make on this line? [laughs] I guess at the initial stages I'd much rather sell 500,000 units of a really good game because you'll be known by the games — and the type of company — that you keep. So I would rather have hardware and software that was very well done, well known, and that set a standard everyone else had to shoot at, as opposed to a game that was sold because it was an NFL licensed property and anyone could have done it.

### Gearing up for games

**NG:** Nintendo has Shigeru Miyamoto [the creator of *Mario*, *Zelda*, and *Donkey Kong*] and Sega has Yu Suzuki and AM2 [creators of *Daytona USA* and *Virtua Fighter*]. Sony has no in-house game superstar and is relying solely on third party development. This has to be a weakness, right?

**Steve:** I don't necessarily agree with the contention that we are relying solely on third parties — we have active product development in the US, Japan, and Europe.

Also, I think there's a lot that is overdone with this whole notion that Sony doesn't have a heritage. First of all, electronic gaming is not an industry that's been around for hundreds and hundreds of years. Look at *Id Software* [the producers of *Doom*], people like that. They had no heritage in this business and look at the kind of games that these guys are producing. They're probably the hottest guys in the industry today — and out of Texas! Give me a break! This is not

a blue blood industry, and I don't think you need to have this long lineage of game history or game viability. This is a business that comes and goes. It's made in the minds and on the backs of 22-year-old creative geniuses.

**NG:** Sega's strength stemmed from its sports games, Nintendo's success was built on the back of fantasy, 'cutesy' titles, such as *Mario* or *Zelda*. What gaming niche will Sony make its own?

**Steve:** We'll provide products in a wide variety of genres first and then we'll see which to develop an expertise in. We want people to recognize the capabilities of our system, then to have them utilize those capabilities in such a way that it makes it increasingly difficult for third parties to release the same game on other platforms.

**NG:** So are you saying that Sony will actively be discouraging publishers from re-releasing their games on other platforms?

**Steve:** No, no, no. I mean, we can't. If a third party has a license and he wants to put across multiple platforms, he's more than welcome to do it. We would, however, encourage them, or find some incentive basis for them to give us a lead or have it on an exclusive basis. Namco, for example, has three of the first five PlayStation games and these are exclusive. They've made a decision that we are the better system and that our system is the one that can do the things that they want to do technologically. We will encourage other people to follow Namco's lead, but insisting that they not go down the road with any other publisher just can't be done anymore. That hegemony is over, the notion is just a throwback to the old Nintendo days.

**NG:** Nintendo has *Mario*, Sega has *Sonic*. Does PlayStation need a mascot?

**Steve:** Oh sure, we'd love to have one. But it's a bit like catching lightning in a bottle. Everybody wants to do it, and we've spend some money and some effort into it, but so far we haven't come up with one that we think is right. I don't think it'll be as cute an icon as either *Mario* or *Sonic* are, in part, because our target audience is a little older and a bit more sophisticated.

**NG:** Securing *Mortal Kombat 3* for PlayStation was a great coup. Will the home version be arcade perfect — in terms of violent content?

**Steve:** Olaf Olafsson and Williams put together the deal and I think it was a great one. We're really looking forward to the game. If it is anything nearly as good as *MK1* or *MK2* — there'll be a great halo affect to it appearing on our system. In terms of the whole issue on violence and pornography and things of that nature, we have a very strict set of guidelines — in terms of content and quality, and in terms of what can go into the videogame. But we don't believe, per se, in the censorship of videogames in one form or another. However, we do subscribe to, and I'm one of the founding members of, the board that rates the videogames.

**NG:** So it will be exactly the same as it is in the arcade, but with a suitable rating?

**Steve:** Yes. Absolutely.





The tight alliance between Namco and Sony provided PlayStation with *Ridge Racer*, a sure-fire hit in the US

## The competition

**NG:** Four years ago, Sega was able to attack and make inroads into Nintendo's market share because Sega was a lean, hungry company without a huge 8bit empire to worry about. Do the same things that made Nintendo vulnerable to Sega four years ago make Sega vulnerable today?

**Steve:** I don't know. Clearly, Sega is a much bigger company today than it was when it first took on Nintendo in 1989 and 1990, and generally innovation comes from companies that are smaller or just getting into the business. I think that Sega has some vulnerability in the baggage that it's carrying with all five of its platforms because, gee, the consumer and retailer won't let you do that. This is getting more like the toothpaste industry or the soap powder industry where one of the battles is for shelf space. The retailer is confused, the consumer is confused. Some number of these gaming platforms have to die, and in trying to support that many platforms Sega's advertising dollars and marketing support will get thinner and thinner.

**NG:** How do you rate Saturn as a product?

**Steve:** If you take a look at the architecture of Saturn, you can see that Sega went around with a shopping cart and basically picked and chose components. Then, having seen the Sony product (if we believe what we read), they re-engineered, got back out their shopping cart, and picked up a variety of Hitachi chips that they're now using. These chips are well down the learning curve and there's millions of them made; they're using them in vacuum cleaners and rice cookers and all sorts of things. So they're not as susceptible to the learning curve as is our chip set — there's not as much to discover about them.

But having said all that, Sega makes wonderful products. *Virtua Fighter* is a nice product, *Virtua Racing* is a good product. Sega has a heritage of making good products. And for both Sega and Nintendo, this is their main business.

**NG:** How do you rate Nintendo's chances of success with its Ultra 64?

**Steve:** Nintendo is vulnerable for staying with masked ROMs instead of CDs. I don't think that in the days of just-in-time inventory [a very fast manufacturing and distribution process only

possible with CD-ROMs] and quick turnaround that retailers or third party software developers will put up with 8- to 10-week turnaround time. Masked ROM cartridges are also inherently more expensive, regardless of what Nintendo says about compression algorithms that no one else knows about. How much is a 32Mbit or a 48Mbit cart going to cost? They're talking 100Mbit carts at 25Mbit prices. Even if the dealer ultimately accepts that, that's still a very expensive product.

However, Nintendo has \$3.2 billion in the bank and is a long-term bet. This is the only industry that it's in, and it will fight very hard. Never discount anyone with \$3 billion in the bank.

**NG:** Sega's Tom Kalinske said the same thing about you, "God knows how much Sony is in the bank." So if it all comes down to money, then how serious is the competition from Atari?

**Steve:** The market is telling us now. I think Jaguar is a very nice product but the market hasn't adopted it. The same is true with 3DO. While the chairmen of these respective companies might be saying yes, the market is saying no.

**NG:** 3DO's Trip Hawkins claims that the M2 accelerator, which is also scheduled to launch this fall, will make 3DO a "PlayStation beater." Are you scared of this?

**Steve:** Not particularly. It's hard to say what the new 3DO product will be because we're talking about specs and anyone can write down specs on a piece of paper. What's the price point going to be? How's it going to be distributed? You also have to look at the bigger 3DO picture. Even if you're going to suspend disbelief in a lot of areas worldwide, Trip's probably sold less than 500,000 units — in more than a year. That's not a resounding success. He probably has installed in the United States somewhere between 80,000 and 150,000 pieces. That's not a lot of units, and I think that as far as retailers are concerned, when you start to smell like three-day-old fish, you are three-day-old fish.

**NG:** Do you ever feel like an army general going into battle? Is there a war spirit in Sony HQ?

**Steve:** Yes. I think there is. But it's certainly not a siege kind of mentality — we're storming the bastion rather than we are the bastion. I think that there's a warrior mentality here in the company which is the kind of image we're looking for — we want to make history.

Our advantage is that we are guerrilla fighters, we have the ability to move and go, move and go, whereas Sega and Nintendo are much more anchored to terra firma. Having said that, their 16bit baggage does have value; they're a well known name.

Thank God Sony is, too.

ng

**"[Sega's] chips are well down the learning curve and there's millions of them made. They're using them in vacuum cleaners and rice cookers. There's not as much to discover about them"**

## NEXT MONTH

Nintendo is the company with the most to lose from the next generation videogame war. With more than 40% of US homes in possession of a Nintendo machine, it's currently king of the videogame hill. Next month, **NEXT Generation** speaks with Howard Lincoln, Nintendo's US Chairman, to discover how it intends to defend its turf.

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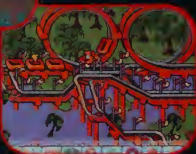
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 "Graphically, the art is right on." - Die Hard Game Fan



Game tips and hints: 1-900-737-ATARI, 95¢ per minute. If you are under 18, be sure to get a parent's permission before calling. A touch-tone telephone is required. USA only. Atari Jaguar information is available in the Atari Gaming Forum on CompuServe. Type GO JAGUAR to access this area 24 hours a day. Atari Jaguar information is available in the Atari Roundtable Forum on GEnie. Type JAGUAR to access this area 24 hours a day. \*Includes Jaguar and one controller. ATARI, the Atari logo, Jaguar, the Jaguar logo, Burn Out, Fight for Life, Iron Soldier, Tempest 2000, Hover Strike are trademarks or registered trademarks of Atari Corporation. Copyright 1995, Atari Corporation, Sunnyvale, CA 94089-1302. Made in the U.S. or domestic and imported components. All rights reserved. Troy Aikman NFL Football © 1994 Williams Entertainment Inc. Trademark™ and Troy Aikman NFL Football are trademarks of Williams Entertainment Inc.

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**Saturn:** US launch/**p.14** • **Japan:** Saturn leads sales/**p.17** • **Nintendo:** Games by satellite/**p.18** • **Arcade:** Revolutionary new system/**p.22** • **Datebook:** Shows/**p.29**



The hottest global news that affects the games you play

# US Saturn to launch on September 2

Sega of America announces "Saturday," and throws down the gauntlet to Sony and Nintendo

**U**S gamers will get their hands on the Sega Saturn on September 2, 1995, Sega of America has revealed. Priced "between \$350 and \$450," Saturn will be nationally available with 20 titles available on the store shelves.

Some cosmetic changes to Saturn's appearance mark the only difference between the US Saturn and the version launched last year in Japan on November 22, 1994. The US edition is black, with boxy lines more reminiscent of the Genesis family than the sleeker, Japanese model. The joypad has also been redesigned, now with larger buttons and a longer cord.

Other peripherals available at launch include the Saturn seven-way multitap, the Saturn Steering Wheel, and — if rumors are to be believed — a light gun (for initial use with a home version of *Virtua Cop*).

**One of Saturn's** potential problems is price. The "\$350 to \$450" tag seems dangerously expensive. It's no secret that the addition of the twin Hitachi 32bit RISC processors, late in Saturn's development, was an expensive (albeit essential) response to the power of PlayStation, leaving Sega now facing the highest manufacturing costs of the "big three." And while Sega remains skeptical of Sony's ability to launch at \$249, confidence of Sony's ability to make it happen is growing in the gaming industry. "We have pretty good information as to what it costs to make each PlayStation, and I'd be

very surprised if they made it," argues Tim Dunley, Saturn's marketing manager. Meanwhile, Nintendo is sticking to its "below \$250" story for big, new console, Ultra 64. So, will Saturn find itself fatally over-priced?

Maybe not. One solution available to Sega is to increase the number of bundled games. With the cost of CD manufacturing less than \$2, Sega is in the unique position of being able to include two, three, or even four games, at \$70 retail value, in the box with the Saturn hardware.

Nintendo can't offer any similar deal (Ultra 64 cartridges look set to weigh in costing at least \$30 to manufacture), and Sony simply doesn't have an in-house resource of quality, ready-to-go, big-name titles like Sega does. A total of \$450 for a Saturn may sound like a bad deal, but if the price included *Virtua Fighter*,



Tom Kalinske, Sega of America's President

**"In less than six months video gaming will take on a whole different character"**



Back in black. The US and Europe get an updated box design

breaking



With larger buttons, the US joystick is designed for Western tastes

Daytona USA, and Clockwork Knight, then that's a whole different story. Sega's successful arcade heritage could pay off yet again.

**The press** release bearing the news of Saturn's September 2 launch also made specific mention of two third party software publishers. Acclaim, it was announced, is developing a bunch of Saturn titles including *Batman Forever*, *NBA Jam Tournament Edition*, *Frank Thomas Big Hurt Baseball*, and *Alien Trilogy*.

More intriguingly, Electronic Arts (a company conspicuously secretive of its 32bit plans so far) was picked out for special mention. EA built its extremely lucrative cartridge business on having been the first major backer of Sega's Genesis four years ago, and has subsequently been a faithful ally of Sega and a company committed to backing fledgling systems early. Only fledgling systems with the power to succeed, however — and so far EA has failed to pick its favorite in the next generation race. Following Sega's announcement, however, it would seem that Saturn will benefit — perhaps not exclusively — from EA's considerable expertise.

The Saturday announcement also marks just the first of what will undoubtedly turn into a barrage of press releases from Sega, Sony, and presumably, Nintendo, leading the launch of Saturn, PlayStation, and Ultra 64. Whether this release date is set in concrete, as Sega maintains, or whether the September 2 announcement is simply a decoy — an attempt to psyche Sony into revealing its PlayStation plans — only the coming months will reveal.

Prior to the pre-Christmas launch of Saturn and PlayStation in Japan, Sega and Sony played out a complicated game of cat and mouse, each company changing and re-changing launch details "To see who blinks first," as Sony's Steve Race explained. And will a similar pantomime be played out in the US?

"I think that we'll see a similar sort of things going on," Race predicts. When asked the same question, Sega's Tom Kalinske conspiratorially replies: "I imagine. We're going to keep a lot of things as quiet as possible until we spring them on [Sony] and I'm sure [Sony] will do exactly the same to us."

One thing is for sure, and it is that the real games are just beginning.



The (black) backup cartridge will also be available at launch



And that ultimate gaming accessory, the multiplay tap

## Advertainment

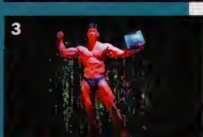
Sega of America's own, in-house commercial for Saturn is only for use at trade events and shows. So don't look for it on TV. Each of these sequences is bridged by game footage

Company: Sega

Product: Saturn

Date: March 1995

Origin: US



1 A sinister, bald head emerges from a swirling mist. Its deep voice announces that mankind is only five years from the millennium and stands on the verge of the "interactive age." 2 An altogether less sinister character dances around a TV set. 3 The power of the Saturn is likened to that of a particularly large body builder. 4 The point is unnecessarily rammed home. 5 The second worrying character (not including the body builder) is introduced, who showcases some games. 6 And then proceeds to dance around. A lot. 7 Altogether more appealing; a lovely young lady changes the mood considerably. Guess what she's got under the hood? 8. You guessed it! It's that nutritious, wholesome Saturn. 9. Sega promises "something entirely different" for TV...

# breaking

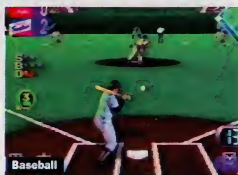
With the cost of CD manufacture less than \$2, Sega is in the unique position of being able to include two, three, or even four games, at \$70 retail value, in the box with the Saturn hardware



Clockwork Knight



Golden Axe: The Duel



Baseball Stars



Daytona USA



Title Fight 2



Virtua Fighter



Victory Goal



Black Fire



Minnesota Fats Pool



Golf



Bug



NHL All-Star Hockey



Virtua Racing



## Neptune ready for launch

Sega's combined Genesis/32X unit is complete and ready for launch later this year. The cartridge-based console will retail for "less than \$200" and come bundled with one or more titles — perhaps the 32X version of *Virtua Fighter* scheduled for a September release.



Neptune, Saturn's \$200 little brother, yesterday



# Japanese stats give Saturn the edge

New consumer figures show that the PlayStation is running second to Saturn in Japan



Lines of shoppers illustrate the success of Sega's Japanese Saturn launch (above). Empty game cases substitute for the real thing (inset)



## Most wanted machines

The hugely popular Japanese games weekly *Famicom Tsushin* recently asked its 750,000 readers which machines they intended to buy. The results were:

- PlayStation: 41%
- Saturn: 22%
- Neo-Geo CD: 12%
- PC-FX: 9%
- 32X: 7%
- 3DO: 6%
- Other: 3%

Incidentally, 22% of the magazine's staff claimed that, if faced with the choice themselves, it would opt for the Saturn, while just 18% favored the PlayStation. But a full 40% said they wouldn't buy any new machine...

**T**he latest Japanese stats reveal that Saturn outsold all its rivals in the crucial Christmas season. It appears that despite the apparent technical superiority of the PlayStation, *Virtua Fighter* has got a firm grip on the nation's wallets.

By the end of December, 1994, the Saturn had sold 500,000 units at ¥44,800 (\$482) each — this figure includes 50,000 JVC V-Saturns — against 300,000 units at ¥39,800 (\$428) for the PlayStation. This equates to the Saturn shifting an average number of 17,241 units a day and the PlayStation 15,789. (The Saturn was released on November 22 and the PlayStation on December 3.)

Other machines have fared surprisingly well considering the strength of the opposition. NEC's PC-FX (successor to the much loved but now obsolete PC Engine) sold an amazing 70,000 units in the week it went on sale before New Year's Day, despite its higher price of ¥49,800 (\$535). The Neo-Geo CD has also done spectacularly well (more than 100,000 units according to sources), although SNK has yet to release sales figures.

The 3DO's performance was perhaps the most surprising, at least in terms of overall sales. By the end of 1994, there were 365,000 units in



Japanese homes. Many of these sales were over the Christmas period, thanks to the excellent *Super Street Fighter II X*. However, the 3DO, which was launched on

March 20, 1994, has been on sale for longer than the Saturn or PlayStation, and its average daily sales amount to a meager 1,460.

Unbelievably, there's already a market for used next generation machines in Japan. With the exception of the 3DO, prices are holding firm, so Saturn owners can trade it in for not much less than they paid for it. However, PlayStations are virtually impossible to pick up used as Sony is allegedly discouraging reselling.

In the light of these figures, all the major hardware companies have announced their sales targets for 1995. Sega is hoping to have 1.5 million more Saturns in Japanese homes by Christmas 1995, with an additional 180,000 predicted by JVC.

Sony, evidently less bullish, is being more conservative, forecasting sales of only 700,000 for the rest of the year — even though the machine is now selling faster than it was in 1994.

The 3DO Company, in a mood of determined optimism as it repeatedly fails to meet sales targets, has set itself the ambitious task of selling 1,105,000 units this year. It's now possible to buy an FZ10 in Japan for as little as ¥31,000 (\$333).

The Japanese buying frenzy of November and December has obviously settled down, and more reliable signs of the overall state of affairs will appear over the coming months. **ng**

## What is it?

In the early to mid-1980s, this international hardware standard — a sort of forerunner to 3DO — was licensed to various Japanese hardware manufacturers including Panasonic, Sony, and Mitsubishi

## Jag jets east

Atari is not noted for its strength in Japan, and the Jaguar's recent introduction to Eastern consumers is unlikely to change this situation.

At ¥29,800 (\$320), the Jaguar costs less than most of its competitors. However, since only 2,000 units were sold before Christmas, it seems unlikely that Japan will help Atari to realize its forecast of 2,000,000 Jaguars sold worldwide by the end of 1995.

breaking

# Nintendo aims high with "Satellaview"

SFC owners will soon be able to download games via satellite

## It is...

Alexey Pajitnov, the Russian author of *Tetris*. His employers, the Computer Center of the Moscow Academy Of Science, a government R&D lab, denied him a potential fortune. He did get an IBM PC, though...

## Coming to America?

It is unlikely that a similar system will be introduced into the US, but there can be no doubts that networking will play a very significant role in Ultra 64 and Nintendo's futures. The recent alliance with GTE has paved the way for a vast entertainment network empire to be built underneath the Ultra 64 banner. See page 34 for the story so far.

**N**intendo has announced a satellite link-up facility for the Super Famicom in Japan. The "Satellaview" is planned as an add-on for the aging 16bit console, and will exploit the St GIGA satellite channel together with facilities provided by custom hardware to provide educational and leisure software.

Nintendo initiated the project with the acquisition of a Japanese satellite company last year. The "Super Famicom Broadcasting" program kicked off in March with selected demos, game tips, and forthcoming attractions. Nintendo is stressing that the channel is adult-oriented and that videogames will constitute only a small component of its airtime.

**To receive** the broadcasts, SFC owners will need a separate Satellaview upgrade box which will plug into the small expansion slot on the base of the machine. Inside the box is 1MB of ROM (containing the operating system) and 512K of RAM to boost the SFC's paltry onboard memory. The unit will be packaged with its own power relay unit, a custom AC adapter, and an AV selector. Users will also need a tuner and a parabolic antenna to actually receive the satellite signal, but many TV sets in Japan already have this equipment built in.

The whole setup will cost around ¥14,000 (\$150). A subscription to the St GIGA satellite's BS-5 channel will also be required, but the cost of this is likely to be nominal. The actual Super Famicom Broadcasting session (which takes place daily from 4 to 7pm) will be unencrypted, which means that games will be free to download.

Instead, Nintendo will run the system like a commercial television station, selling ads to companies and arranging sponsorship of events.

Nintendo hopes to sell around two million units of the system in its first year on sale, even though it will only be available by mail order. It has already announced plans for accessories, including a 1 MB flash

memory card (which looks rather like a Game Boy cartridge) to supplement the base unit, which has only 256K of save-game memory.



The Satellaview enables access to Nintendo's new SFC broadcast channel

The retail price has yet to be confirmed, but the card's large storage capacity means that gamers who need extra memory should only have to buy one.

The only two firms known to be supplying games for the system so far are Nintendo and Square Soft (which is 20% owned by Nintendo). However, Atlas, Konami, Taito and Data East are also considering developing for it. The possibility of



The base unit. The slot at the top right provides the connection

## Ultra 64 hires talent

Nintendo is recruiting game development teams for the Ultra 64 due to be released in Japan at the end of this year (ad below). The company is looking for "undiscovered talents," specifically, programmers, game design and animation experts, graphics specialists, producers, and playtesters. Ominously, Nintendo is particularly interested in people who have been involved with game projects that have been previously canceled. Bearing in mind that most



worthwhile titles require 12 to 18 months development time (there is now only six months to go), the time left until launch will probably not be stress-free.



The memory carts are about the same size as a Game Boy cart

multiplayer versions of Square's celebrated RPGs may well prove irresistible to the Japanese.

Nintendo is hoping that its satellite venture will help calm fears that the dominant force in the industry is stagnating. The Virtual Boy has not been particularly well-received; and there have also been doubts about the state of the Ultra 64 deal with Silicon Graphics. Falling profits on SFC software and hardware means that Nintendo is now on the defensive. The Satellaview will be seen by many as Nintendo's chance to redeem itself.

It could also be Nintendo's best attempt yet to build the gaming network of the future. And if it succeeds, then US gamers have something to look forward to.



## Advertainment

In its occasional series on the art of videogame marketing, NEXT Generation looks at the Japanese TV ad for the PC-FX

Company: NEC  
Product: PC-FX  
Date: Dec. 1994  
Origin: Japan



1 The opening scene is a long, darkened room, dominated by a trio of bald, leather-jacketed examiners.

2 The head examiner shouts

"Next!" and instructs the approaching candidate to "Do it!" 3 The candidate sets down the PC-FX, closes the lid, and the machine kicks into action. 4 The video wall behind him displays the intro to *Team Innocent*, one of the first titles for the system. 5 The examiners are tentative at first... 6 But it isn't long before their excitement explodes. 7 The ad ends with a picture of the product and the release date.



What is happening inside Nintendo's Kyoto HQ? The company may be launching Satellaview, but there's little sign of the Ultra 64 yet



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# Parallel technology enters VRcades

A fledgling codeshop takes on the big, Japanese arcade companies

**T**ao Systems — the company behind the revolutionary Taos operating system — is aiming to push back the boundaries of high-end arcade and VR systems. The UK company is in the process of designing both its own hardware architecture — based, unsurprisingly, on its own global parallel operating system, Taos — and its first game, which will appear in arcades and VR centers in the latter half of 1995.

Tao Systems describes *Spyfish* — an underwater action adventure — as the “highest specification arcade and virtual reality game system and engine.” Curiously, though, instead of using the conventional Japanese approach of investing in the development of custom silicon, Tao Systems has approached its first game in a radically different way by basing it on standard, off-the-shelf chips. The basic design and coding of the game was actually started before the hardware was even considered.

“When we originally set out, we were more concerned with what type of game we were going to end up with,” recalls Tao Systems’ Chairman Francis Charig. “We didn’t worry so much about the hardware. In fact, the chips we have presently chosen didn’t even exist back then!”

**This unusual** approach was made possible by the unique attributes of Taos. Because of the manner in which Taos works, it’s possible to write portable code that will run efficiently across a large variety of different architectures. Taos has enabled the company to design a low-cost, high-specification arcade board which uses a range of proprietary technologies which will run in parallel.

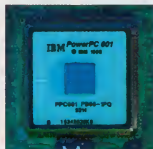
At the core of the system is an Intel Pentium motherboard with four fully populated PCI slots. Each PCI card will incorporate a 100MHz Motorola PowerPC chip as well as a 50MHz 3Dlabs GLINT processor (see **NG 1**), and will handle a quarter of the screen. Tao’s main target is a 24bit



*Spyfish* is Tao Systems’ first foray into the arcades. The finished game will shift over one million polygons per second in realtime

color display that runs at a minimum resolution of 640x480 and that generates between 500,000 and 1.2 million polygons per second at a rate of 50 frames per second.

According to Tao, the PowerPC was chosen because of its proficiency at handling floating-point arithmetic, while the GLINT chip has an unbeatable price/performance ratio. But cotechnical director Chris Hinsley admits: “The polygon rate will depend

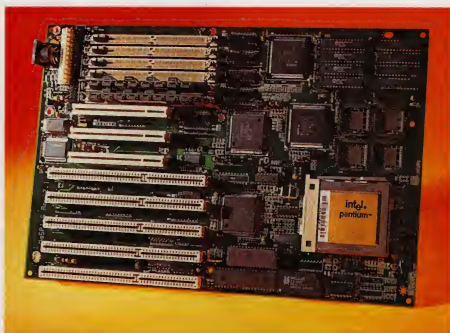


*Spyfish*’s minimum specification contains four PowerPCs and four GLINT chips





The parallel architecture of Tao's arcade system features four PowerPC chips and four GLINT chips — a seriously powerful kit



Tao Systems has chosen a Pentium motherboard (it's cheap) with four PCI slots to form the basis of its arcade system (PC board above)

## What is Taos?

Taos is a global, heterogeneous, parallel-processing operating system. Unlike most code, which has to be recompiled to run on different chips, code that is written in Taos is portable and can run across dissimilar architectures. It works by using a "virtual processor" that translates binaries on the fly into native code suited to individual processors.

In theory, this means that it's possible to run code across a Pentium, a 68000, and even a Hitachi SH-2, exploiting each chip's strengths, with minimum speed overheads.

on which version of the GLINT chip we use. At the moment only the SX version of the chip is available, but when the TX version arrives [later this year] the chip will let us bump up the number of textured polygons to more than a million a second."

**Spyfish uses** a large graphics database and therefore requires a lot of memory. Tao is currently designing the PCI cards (in cooperation with a UK company called Firefly) to enable each PowerPC chip to access a vast 32 megabytes of private EDRAM (faster than DRAM), while the GLINT chip will be able to call on as many as 32 megabytes of local buffer RAM and, if necessary, as much as 32 megabytes of VRAM. The PowerPCs will handle all the geometry calculations while the GLINT chips take on the back-end rendering.

There's no shortage of RAM on the Pentium motherboard, either. Tao estimates that the board will have



Two of Tao Systems' prime movers, Tim Moore (left) and Francis Charig (right)

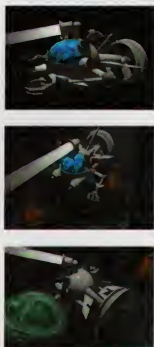
between 28 and 64 megabytes to store the game logic and feed the PCI cards with position information. As far as hard storage is concerned, Tao anticipates that both a gigabyte hard disk and a CD-ROM drive will be included in the machine.

"From a purely technical point of view, the system we've created exceeds anything that exists at the moment," assert Charig. "But because we're simply taking off-the-shelf components, we're going to end up with a box that's costing no more than anybody else's."

Of course, great hardware is meaningless without an entertaining game. At its most basic level, *Spyfish* can be described as a high-end action arcade game, but both Hinsley and cotechnical director Tim Moore firmly believe that today's high-end arcade and VR experiences are lacking many of the qualities that older computer games used to exude.

**"When I look** at most new games I don't see any new ideas," says Moore. "What we're trying to do is create a game that's not only exciting to play, and that fits the mold of a traditional arcade game, but has some of those other elements such as humor and strategy. For example, there will be places in the game where, if you go in with all guns blazing, you won't succeed."

In addition to the standard arcade version of the first game, *Spyfish*, Tao Systems has in its plans a VR version which will achieve the greater performance needed for stereoscopic visuals — Tao is working



A pre-rendered conceptual demo provides a glimpse of *Spyfish*'s 'search and destroy' action

# breaking

with HMD specialist Forte on the display technology — by simply doubling the specification: one motherboard (each with the four PowerPC/GLINT-equipped PCI cards) will be used for each eye.

**"Even with** this kind of set-up we're ending up with something that's no more expensive than a low-end Virtuality system," claims Charig. "Such is the nature of Taos, we could keep adding more processors to keep the spec right at the leading edge." The company is also planning a multiuser version of the game which will take advantage of Taos' ability to address multiple processors.



Rendered using *Real3D* on the Amiga, these test creatures are just part of the huge range of adversaries in *Spyfish*



Chris Hinsley, the inventor of Taos, coded some classic 8bit games

A wider ramification of using Taos code is that both *Spyfish*'s polygon engine and its game engine will be reusable for future projects. Because of the way that *Spyfish* that has been developed, the game engine (the code that manipulates objects and backgrounds and calculates collision, etc.) is completely separate from the image-generation routines. To capitalize on this, Tao intends to package the image generator with the next release of Taos, so people can write to that interface themselves. Taos could be used to port games onto consoles like the PlayStation and Saturn, and the arrival of other custom polygon chips later in the year means that the route into the arcades could become even easier for developers. As long as they use Taos, of course.

Although nothing can be confirmed at this stage, Tao Systems is currently in discussion with various arcade manufacturers. The first demonstration of the game (a basic version possibly using a single PowerPC chip) was shown at the Motorola PowerPC stand at the Hanover, England, CeBIT show.



## SGI takeover

Alias Research and Wavefront Technologies, industry leaders in high-end graphics software, have been incorporated into the Silicon Graphics empire. The move will lead to a new subsidiary company being formed within SGI to handle all of the software-related matters.

Silicon Graphics needed to consolidate its position following Microsoft's acquisition of SoftImage last year. Merging with these companies and integrating their software ensures that the status of SGI workstations as the powerhouses of videogame graphics is maintained.

SGI expects the entertainment industry to account for an increasingly large part of its income.

### Spyfish tech specs

CPU:	Intel Pentium @ 133MHz (V2)
Coprocessing:	Four fully populated PCI cards, each comprising: Motorola PowerPC 603 + 3Diabs GLINT 300SX/300TX graphics accelerator
Graphics:	500,000 polygons/sec (V1); 1,200,000 polygons/sec with GLINT 300TX (V2) 50 frames per second 640x480 minimum resolution
Color:	24bit (16,777,216 colors)
Memory:	EDRAM, VRAM 1 GB hard disk, CD-ROM drive 457Mb/sec bandwidth
Release:	Demonstration hardware (V1) available second quarter '95 Complete demonstration hardware (V2) available third quarter '95

# JOYRIDING

by Bernard Yee

## gaming updates from cyberspace — where talk is cheap

There's a place where you seek out new life forms who share your love of interactive entertainment — without leaving your home. Cyberspace, the term made popular by science fiction author William Gibson, is the place to be to meet people from around the world. The most famous address in cyberspace isn't really one address — it's more like a whole country. But the Internet is one roadside attraction (albeit a huge one) in the universe of cyberspace.

You can find gamers who share your interests in cartridge games, CD-ROM, Mac, PC, coin-operated games, virtual reality — you name it, there's probably a heated and lively debate going on right now, somewhere in cyberspace. Want cheat codes or strategies? Advice on what games are worth buying and which are not worth the floppies they come on is widely available and freely given by dedicated gamers, and even occasionally a software reviewer or two.

**The Internet** began life as Arpanet, a network of computers linked together to facilitate easy sharing and transmission of data for defense purposes. The network lost its military focus, and expanded to include researchers at universities. Soon, discussion groups started by students cropped up, talking about everything from sex to *Star Trek* — and sometimes, both. The Internet is a series of computers linked to each other — by logging on to the Net, you have access to many Internet sites, including shareware files, information, graphics and messages. These discussion groups are called Usenet groups, and it should be no surprise that many are devoted to interactive entertainment. Keep in mind that unlike commercial online services like America On-Line, there is no content regulation on the Net, so you may find some offensive or inflammatory discussions going on. "Newbies" to the Net are often treated rudely or coldly, so before you leap in to the fray, read any FAQs (Frequently Asked Questions) available on the group, and watch the discussions develop so you can get a sense of the "netiquette" involved.

There is a wealth of information on the Internet. Here are some Usenet groups that have some active game discussions: Check out:

- rec.games.video.arcade
- alt.video.games.reviews

For discussions on, and reviews of, videogames there are a few places to discuss computer games. Try this one at first:

- alt.games

Other newsgroups have developed for specific genres of games, even for OS/2 users and *Wing Commander III* fans.

- comp.sys.ibm.pc.games.action
- comp.sys.ibm.pc.games.flight-sim
- comp.sys.ibm.pc.games.rpg
- comp.os.os2.games
- alt.games.wc3

Try this Gopher (a text retrieval system) site at the

University of Minnesota:

- consultant.micro.umn.edu
- Choose these menu items:
- fun and games/games/arcade games

**The World Wide Web** is another part of the Internet which provides a more graphic environment for users with hypertext links to related subject (click on a highlighted phrase to get entries on that subject). The locations for Web sites are a bit arcane — since the backbone of the Internet is UNIX (an operating system), navigating the Net may be a bit intimidating for users without a good navigator. There are several Web sites devoted almost entirely to computer gaming. Here are a few to check. For *Doom* fans, you shouldn't miss:

- <http://www.cs.hmc.edu/people/tj/docs/doom/> If you're looking for game hints, check out:
- <http://wcl-rs.bham.ac.uk/~djh/walkthr.html> Sega has its own Web page at:
- <http://www.sega.com>

FTP stands for file transfer protocol, a way of downloading publicly available files. FTP game cheats from this site:

- [ftp.spies.com](http://ftp.spies.com)
- Use this path:  
\*/game\_archive/cheatList/\*
- A FAQ on computer games is available at this FTP:  
\*rtfm.mit.edu
- Use this path:  
\*/pub/usenet/comp.answers/PC-games-faq/\*

**If you are** looking for a good Internet service provider, check out the Pipeline at 1 (212) 267-3636 — it has a very friendly Windows front end that makes checking out Usenet groups and Web pages easy. Pipeline has just announced national dial up service, so be sure to check it out. If Internet access is all you're looking for, then Pipeline may be a more economical route than the Internet access through the major commercial online services.

So, if you're ever stuck trying to set the reactor destruct code in *System Shock*, or want to learn the winning moves in *Mortal Kombat*, cyberspace is the most valuable resource you could have — especially at 3 a.m.! Log on and learn.

**Next Month: Dive into commercial online games**



**" Relentless is a visual orgy - a truly spectacular experience for fun-seeking gamers..."**

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**" Get this game, you'll be amazed. "**

*Computer Gaming Review*

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*Computer Player*

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*PC Gamer*

**"...one of the most innovative games of the year."**

*Computer Gaming World*

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# Arcadia

An insider's angle of the arcade business gives you a close-up on changes affecting the games you play



Marcus Webb is the editor-in-chief of *RePlay* magazine, the US' leading trade amusement magazine

by Marcus Webb



A total of 24 simulators provide for wild group videogame sessions



Battle Tek is one of two games offered in VWE's digital theme parks



The tremendous feel of VWE's atmosphere is felt upon walking in its doors

## Virtual Worlds Offers Digital Theme Parks

What do you call a million dollar fun-center with lavish theme sets, costumed attendants, and a roomful of linked video simulators? Well, Virtual Worlds Entertainment calls itself "the world's first digital theme park." Eight VWE sites are now scattered across the US, with more on the drawing board for this summer and fall. The heart of a visit to VWE is an elaborate 10-to-15 minute "group videogame" on linked, nonmoving cockpit simulators. Intercoms inside each simulator permit team members to talk to each other during gameplay.

VWE sites typically stand at 6,800 square feet and house 24 simulators (three sets of eight linked units). These super arcades offer a charming Victorian, Jules Verne atmosphere complete with sitting parlors, potted plants, turn-of-the-century wallpaper, 1890s telephones, and a nonalcoholic bar. Up to 2,800 people visit each center weekly. The average Virtual Worlds "jet jockey" goes on two or three missions per visit; and some hard-core players have racked up as many as 1,000 or more missions.

A complete simulation experience begins with a 10 minute video briefing, followed by 10 minutes of intense gameplay, and ends with a 10 minute debriefing, including video playback of your mission. Players will go home with computer-generated score sheets and highly detailed flight logs of their missions. Cost ranges from \$7 to \$9 per player, per mission; and frequent flyers can earn escalating discounts.

VWE offers two software packages: *Battle Tek* — tank warfare in an alien desert; and *Red Planet* — a wild, high-speed race through the canals of Mars. VWE focuses on providing a steady series of upgrades and new gameplay wrinkles in these fantasy adventures. Staying with the same basic software, while providing steady upgrades, allows customers to get deeply familiar with each game's strategy, tactics, and storylines, honing their skills while enjoying the familiarity of a known fictional universe.

Gameplay is more like a sport than a videogame because players are basically competing against each other instead of against a computer, VWE claims. Thus, gameplay variations are — literally — infinite. Players form teams and love to socialize with teammates and opponents as part of the overall fantasy experience. Dedicated ISDN phone lines permit remote, interactive gameplay between VWE teams in different cities.

Coming soon to VWE: all new hardware and software. Its next generation of simulators will contain a dramatically higher level of computer graphics (texture mapping) and more frames-per-second of animation. This advanced animation will be presented on curved screens from Infinity Graphics. A new adventure called *The Caverns* will debut on this system, featuring themes of competition. VWE has a good number of female players already, but executives hope the less confrontational content in *The Caverns* will help broaden their appeal even further.

## Biker Chic from Sega

Sega launched the era of arcade simulators 10 years ago with a spectacular motorcycle videogame called *Hang-On*. In that classic game, players sat on a full-sized, bright red fiberglass motorcycle body and leaned left and right to take the curves on the curved course (the monitor was positioned right on the handlebars). Now we have early word that Sega is updating this classic theme with *Cool Rider*. Details will follow in a future column.

Those who've seen the company's new sitdown driving simulator, *Sega Championship Rally*, claim the graphics aren't quite as good as *Daytona USA*. Meanwhile, Sega's *Virtua Fighter II* has the speed, fluidity, and texture-mapped graphics to realize the promise of *Virtua Fighter I* in a rather stunning fashion... as arcade earnings have been proving for some time now. This spring, Sega will reportedly debut *Golden Axe* — the *Duel* which is a sequel to its popular fantasy adventure game of yesteryear. It will be the first game on their long-awaited 32bit coin-op system, now called "ST-V" which is the arcade cousin of Sega's forthcoming Saturn home system.

## A "Damme" Good Videogame

A new manufacturer called GameStar will release a new fighter to arcades this summer: *Street Fighter: the Movie*. Featuring digitized footage of Jean-Claude Van Damme and the entire cast of the film that was released in the '94/'95 holiday season. GameStar's parent company, Capcom, produced the earlier *Street Fighter* videogames as well as the Hollywood film.

## More Screen Stars Arriving in Arcades

Kaneko is following GameStar on the route from the silver screen to arcade glory. Its new game is called *Jackie Chan* and it features the amazing punch-kick derring-do of the reigning king of martial arts films, digitized from his B-movie classics. Speaking of royalty, the clown princes of low comedy, "Beavis & Butthead," will also make their way to arcades this summer courtesy of Time Warner Interactive (formerly Atari). Judging by early previews, the animation for TWI's game will be an exact duplicate of the cartoon antics seen on the hit cable TV show.

breaking

# Arcade giants do battle at ATEI

NEXT Generation attends Europe's premier amusement industry show



The ATEI was a chance for companies to consolidate their European position while they prepared for the next wave of games. UK VR outfit Virtuality (left). *Ace Driver* (right) is now gobbling money in the country's larger arcades

**T**he 51st Amusement Trade Exhibition International (ATEI) took place at Earls Court, London, with all the flashing lights, excitement, and flair the coin-op industry could muster. Although ATEI covers everything that is coin-operated, during the past 25 years it has been the "Skill With Prices" (SWP) units (basically, videogames) that have stolen the show, relegating the less glamorous Awards With Prices (AWP) systems (essentially what we know as slot machines) to the sidelines. And this year was, by no means, an exception.

One of the most prominent stands at the show was Deith Leisure's. The largest British amusement machine distributor, Deith is owned by Sega Enterprises and its space was packed with the latest Sega

products. Especially tempting were the two six-player *Daytona USA* units standing at either end of the stand. This was the latest version of the hit Model 2 game, incorporating the special Champion Cam feature, in which a video camera is trained on each player and the lead racer is displayed on a large screen. In Japanese and US venues, machines

dispense certificates with a video still-shot of the winning player. Judging by the four-deep lines, *Daytona's* popularity is undiminished.

Also on Deith's stand was *Virtua Fighter 2*. Despite gossip that Sega was losing its edge to other manufacturers, the looks of amazement on the faces of delegates indicated that this smooth polygon fighter will maintain its hold on the arcade fighting sector.

Sega also had its own private booth at ATEI. Alongside *Virtua Cop* and *Virtua Fighter* was AM3's second foray into the world of realtime 3D, *Sega Rally* (*Star Wars* was the first). Using a souped-up version of Sega's Model 2 CG board, *Sega Rally* also comes equipped with a mechanically assisted steering wheel providing realistic feedback from the road.

The driving theme was continued with Namco's highly playable — albeit unremarkable — *Ace Driver*, found on the Brent Leisure stand. But Namco's crowning glory was the exquisitely designed *Cyber Commando*. This vastly improved sequel to its 1993 coin-op *Cyberlind* includes some spectacular graphics (see page 82).

ATEI was, in effect, a microcosm of the amusement trade. The show was dominated by videogames, which was, in turn, dominated by the two biggest players, Sega and Namco. This situation looks set to continue for the foreseeable future.



Mimicking the latest Japanese driving fad, *Sega Rally* offers powerslides galore



*Cyber Commando* (above) features classic gameplay with state-of-the-art visuals



# Generator

by Mark James Ramshaw

The column that extracts the latest developments, rumors and opinions from the jaws of the video game industry



**H**ot on the heels of the proposed new Sony-Philips high density CD (HDCD) format, comes a joint proposal from Toshiba and Pioneer, which has already kicked up a huge fuss. Using finer tracks as well as finer data pits, the proposed format is capable of storing an incredible 4.8 gigabytes worth of data on one CD, or 9.6 GB by using a dual surface format. But interest in the proposal really took off when Matsushita pledged its support for the format. Anyone with a knowledge of '70s technology will remember that it was Matsushita which swung the outcome of the VCR format wars. In light of this, Sony has begun making conciliatory noises. And, there's less compression involved with this format, so it now has the weight of Hollywood behind it. Entire movies on CD with optimum picture quality is their main motive, and the good money is definitely now on the Sony-Philips format. Remember where you read it first.

Other rumblings in the industry at the moment are focused on the Impending Ultra 64 from Nintendo. Obviously, Sony is quick to criticize Nintendo's initial allegiance with cartridges. Sony's Phil Harrison has said "If Nintendo sticks to its cartridge strategy it is not going to supply product with the same production value as you'll see on the Playstation."

And responding to the possibility of a CD version of Ultra 64, Sony's UK head Ian Hetherington claims: "There's still no clear CD strategy. Nintendo has spent years slugging off the format, and now it is not sure."

Peter Molyneux, head of the development team at Bullfrog, sees no problem with the Ultra 64, or with its prosed cartridge format. "By all accounts I've heard that the Ultra 64 is the cream of the crop as far as speed and functionality is concerned. With regard to the cartridge debate, I've always said that going with the CD is not necessarily the best thing to do. On cartridge you can at least use the cartridge for back-up memory. But on the Playstation and Saturn you're limited. The downside is, of course, less space on a cartridge, but everybody is already sick of pre-rendered sequences. People are filling less of their CDs up, concentrating on gameplay instead." In fact, Molyneux sees CDs as no more than an intermediate step. "They'll be gone in a couple of years, or at least replaced by a faster CD format."

But what of the inevitable exorbitant price of Nintendo's high capacity cartridges?

Molyneux again: "If anybody can keep the price down, Nintendo can. If Nintendo subsidizes it, the company will do it. It's a brave move not to have a CD, because it's the consumer opinion that CDs are hot. But it doesn't worry me as a developer."

Shiny Entertainment is presently hard at work on *Earthworm Jim 2* for the Genesis and SNES. Beyond that, we expect to see Playstation projects, and as Dave Perry, head of Shiny, enthuses: "We'll be there developing for the Nintendo!"

Indeed, Perry doesn't have any doubts that Nintendo will deliver. "All along the line they've stood by their price, and by the release date. They've just got to stick to their word. They know what they're doing."

But can Nintendo really win the console wars, despite being the last to materialize? Perry's conclusion: "Everyone thinks they're gonna win. And they will win."

Mark James Ramshaw is free-lance journalist, and a software designer and producer who writes regularly for far too many videogame and music magazines

# Datebook

April

**Computer Games Developers' Conference** in conjunction with the Santa Clara Convention Center Saturday night through Tuesday night April 22 to 26 Westin Hotel, Santa Clara. Organized by computer developers for computer developers. This annual conference is composed of seminars that range for in-house and independent developers on topics such as art, animation, sound, playability, interface, legal issues for independent developers, etc.; meals included; booths are very limited. This is not a marketing conference. Awards for various games, and an awards banquet. Open to the public. Between \$275-\$650. Call (415) 948-2432 (CGDC).

May

**Selling and Marketing Mega Show** May 2 to 4, 1995 New York, NY. Showcases the latest ideas, leading edge tools, and educational seminars in the sales, marketing, and customer service businesses. More than 1,400 exhibits. Consists of three major shows: sales, marketing, and incentive education programs. Seminars include sales, marketing, people performance management, incentive planning and more. Programs presented by Assoc. of Sales Professionals, the Promotion Marketing Association of America, Trade Show Bureau, Meeting Planners International, etc. Call Miller Freeman, Inc. (800) 950-1314.

**E3 (Electronic Entertainment Expo)** May 11 to 13, 1995 LA, CA. Showcases entertainment software, retail products, video, book catalog, record and other mediums. Designed for entertainment software title publishers, developers, content providers, and property rights marketers. Call Knowledge Industry Pub. at (914) 328-9157.

June

**American Booksellers Association Convention** June 3 to 5, Saturday through Tuesday, 1995 Chicago, IL, McCormick Place. The industry's own massive book, newspaper, magazine, and other publishers conference. Each year more technology infiltrates, including CD-ROM games on both the Mac and PC platforms. Book signings, readings, all publishers in the world attend. Call Reed Exhibition Co. at (203) 840-5614 for further details.

**Digital World '95 Conference and Expo**, Monday through Wednesday, June 5 to 7, 1995, LA Convention Center, Los Angeles, CA. This trade show and conference will highlight the convergence of digital technologies and aims at pros in TV, film, the media, magazine publishers, printing companies, digital media, internet users. If you are into multimedia, then this is it. The two sections consist of the Expo highlighting new tools in traditional 'booth' style; the second is the conference consisting of four major panels: 1. Executive Panel; 2. Creating broad band networks; 3. Symposium on multimedia law; 4. Two Digital Demo Days will display new content the public hasn't seen before. Call ZD Expos/Seybold Seminars at (415) 518-6900.

**SHOW ORGANIZERS:** If your show isn't listed here, it's because you haven't told us about it. Call (415) 696-1688, or FAX information to (415) 696-1678, or send details to DATEBOOK, **NEXT Generation**, 1350 Old Bayshore Highway, Suite 210, Burlingame, CA 94010. **NOTE:** All *Behind the Scenes at Sega* books have been sent! Call Prima Publishing to order the book directly at (916) 632-4400.

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Slam City With Scottie Pippen is available on: Pentium™ PC CD-ROM,  
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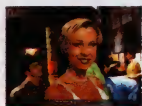


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# Ultra 64

The  
story so far...

Shrouded in secrecy,  
**Nintendo's 64bit collaboration with  
Silicon Graphics** is  
covertly advancing from mere vaporware into the  
real deal. **NEXT Generation** scours the facts from the fiction  
for the story so far

**H**e who laughs last, laughs longest. At least, Nintendo hopes so. While the Japanese launch of Sony's and Sega's 32bit machines forced the two companies, blinking, and squabbling into the US public's spotlight, Nintendo's next generation plans have lingered in the shadows. Ultra 64 remains an enigma — a rumor here, a quiet, teasing press release there — but with very little solid fact on which to assess the machine's actual strengths and weaknesses.

Nintendo has made no secret of the fact that of the "Big Three," Ultra 64 will be the last of the new superconsoles to reach the marketplace. Officially slated for a "late 1995" release, the hot tip of those in the know at the time of going to press is that Ultra 64 will launch on Labor Day, two months behind PlayStation and Saturn, both of which are slotted for a July release. Nintendo is consciously sacrificing a head start in the race for the luxury of extra development time.

What follows here is not a definitive Ultra 64 profile, but simply an analysis of the facts as they have been revealed so far.

# ng hardware

It is also an attempt to clear the air of the hype, misinformation, and even disinformation (courtesy of, in part, creative minds at Sony, Sega, and 3DO) currently clouding the issue. Remember: Don't believe everything you read on the Internet (or indeed, in magazines); don't take tech specs on face value; and, when it comes to system stats, never try to compare apples with oranges.

It's a story that could change the nature of videogaming forever, and it all started on August 23, 1993...

Date:  
August 23, 1993

## Headline:

**Project Reality announced by Nintendo and Silicon Graphics**

## News:

Nintendo enters the next generation race with the surprise disclosure of a collaboration with California-based Silicon Graphics (SGI). The aim, to develop "a truly 3D, 64bit Nintendo machine for home use," featuring the first application of "Reality Immersion Technology." Codenamed Project Reality, the system will debut in the arcades in the fall of 1994, with a home system "priced below \$250" due for release in late 1995.

At the heart of the system is a version of the MIPS/Multimedia Engine, featuring a 64bit MIPS RISC microprocessor, ASICs [Application Specific Integrated Circuit] and a graphic coprocessor. It is revealed that Nintendo will pay SGI royalties for use of the licensed 3D technology, and (rather conveniently) suggested that SGI's Indigo ('Indy') workstations make the ideal graphics development tool for Project Reality software developers.

Target technical specifications are revealed, indicating that this one particular piece of vaporware should be more than a match for Saturn or PlayStation.

**Silicon Graphics' workstations are the hardware force behind much of the world's high-end computer graphics**

### Project Reality Target Specs

#### CPU:

- True 64bit MIPS RISC microprocessor greater than 100MHz
- microprocessor clock speed

#### Graphics:

- Custom coprocessor
- 24bit color, hi-res video
- Resolution exceeds NTSC and PAL TV standards (compatibility with future HDTV)

#### Sound:

- CD-quality sound

#### Performance:

- 100,000 polygons (or 50 pixel meshed triangles) per second
- Exceeds 100MIPS (millions of operations per second)
- Exceed 100MFLOPS (millions of floating point operations per second)
- Realtime anti-aliased 3D texture mapping

**Official line:** "We have always said we will only introduce new hardware when it delivers dramatically improved value for our customers. Our work with SGI enables us to actually skip a generation by diving straight through to 64bit, 3D video entertainment."

Howard Lincoln, VP, Nintendo of America (NOA)

"People's imaginations are fueled by visual imagery. The same principles that enable the world's leading scientists and engineers to visualize complex information will revolutionize video entertainment in the home."

James Clark, Chairman, SGI

**Bottom line:** Wowed by the SGI special effects seen in the movies *Terminator 2* and *The Abyss*, the game-playing world listens in awe. Nintendo and SGI seems to be a world-beating partnership. And while Reality Immersion Technology reeks of an empty marketing slogan, there's no denying that the 64bit tag certainly raises the stakes, especially following on from Sony's and Sega's announcement of 32bit systems — even if numbers don't tell the full story.

Questions, however, remain unanswered concerning software medium (cartridge or CD?) and industry pundits question SGI's ability to come up with the



This flight sim is running on emulated Ultra 64 hardware, the same as the home version



goods at the right cost. SGI's graphics workstations are acknowledged as second to none, but with its cheapest model retailing at a shocking \$40,000, Project Reality is met by many with the kind of healthy skepticism reserved for press releases like "Rolls Royce to develop bicycle." Also, Nintendo has been known to (how shall we say it?) "write checks its pants can't cash," just ask anyone who waited three years for the mythical SNES CD-ROM add-on.

One thing, however, is for sure. And that is with 40% of US homes in possession of a Nintendo system, Nintendo knows the videogame business better than anyone. And as Sony's US boss Steve Race comments, "Never discount anyone with \$3 billion in the bank"; Nintendo has the unique ability to make this ambitious project happen.

## Date:

March 30, 1994

## Headline:

**Rare Ltd (UK) and Williams revealed as Project Reality's first software partners**

## News:

Rare Ltd (Warwickshire, UK), the development arm of Rare Coin-It Toys & Games, Inc. (Miami, FL), signs an exclusive development deal with Nintendo to create *Killer Instinct*, the first in a series of videogames for Project Reality. *Killer Instinct* will be distributed by Williams (WMS). Nintendo and WMS Industries reveal the formation of a joint venture company Williams/Nintendo, Inc. to market *Killer Instinct*. Marketed under the Midway trade name. Williams/Nintendo, Inc. will then acquire exclusive home rights for Nintendo home systems.

**Official line:** "Rare [has been working with Nintendo and Project Reality] for some time."

**Howard Lincoln, Chairman, NOA**

"[*Killer Instinct* will provide] a snapshot of

*the progress of this next generation in videogame entertainment."*

**Wei Yen, Senior VP, SGI**

*"Project Reality represents the most powerful videogame technology in the world. We chose to align ourselves with this technology as well as Nintendo's worldwide marketing power."*

**Joel Hochberg, President, Rare Coin-It Toys & Games, Inc.**

*"WMS Industries is the best arcade videogame manufacturer in the world."*

**Howard Lincoln, Chairman, NOA**

*"WMS looks forward to a close, long-term, and profitable relationship with Nintendo."*

**Neil Nicastro, President, WMS Industries**

**Bottom line:** "Who?" was pretty much the unanimous response of both game players and the gaming industry alike. Rare, famous only for the *Battletoads* series of NES games, seemingly came out of nowhere to sit at the right hand of the most powerful partnership in gaming. In fact, Rare's involvement in gaming dates back 20 years, having made its most significant mark in 1985 as the first NES developer outside of Japan. It was still a surprise choice, nevertheless.

What made more immediate sense was the partnership with Williams. A giant in the world of coin-operated gaming, Williams had recently witnessed a renaissance in fortunes having scored massively with *NBA Jam* and the *Mortal*

*Kombat* series. It had been speculated for some time that Nintendo sought to regain a foothold in the arcades, having lost significant ground to Sega since abandoning its own coin-op development. While Sega Japan's AM2 team kept the home systems well provided with hits such as *Out Run*, *Space Harrier*, *Super Hang-On*, and the awe-inspiring *Virtua Racing*, Nintendo's home systems had no similar resource of quality hand-me-downs.

The world awaited the unveiling of *Killer Instinct* with bated breath...

## Date:

May 2, 1994

## Headline:

**DMA Design Ltd (Dundee, Scotland) to develop games for Project Reality**

## News:

DMA Design, famous for having developed the cult *Lemmings* series, signs on as Project Reality's second official games developer.

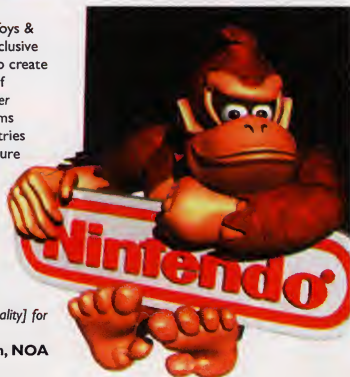
**Official line:** "This move indicates the high regard we have for David Jones [managing director of DMA Design] and his talented organization. It will be clear to anyone connected to the personal computer and videogame industries that the addition of David's creativity will generate another significant boost to the launch of our 64bit platform."

**Howard Lincoln, Chairman, NOA**

"I have had the advantage of viewing the early stages of virtually every next generation videogame machine being developed in the world. And there is no question in my mind that Project Reality is in a class by itself. We are dedicating the resources of DMA to the successful launch of the platform."

**David Jones, MD, DMA Design**

**Donkey Kong Country** started life as a Project Reality game, until Rare discovered a process enabling a 16bit version





## ng hardware



A lemming, tricked out of suicide by the intervention of an umbrella, represents DMA Designs' finest hour

**Bottom line:** Another surprise move, and something of a poke in the eye to Sony. Some history: Following the news that Sony had paid \$48 million to acquire UK-based game developers Psygnosis, a few industry observers pointed out that this was a high price to pay for a company with only one real gem in its portfolio. Other than this one shining exception, Psygnosis' output could be pigeonholed in the "looks great, but where's the gameplay?" category. This ill-advised purchase, it was concluded, was evidence of Sony's naivete and inexperience in the world of gaming.

And that one shining example of a classic game? None other than *Lemmings* — a game published by Psygnosis but actually developed by, and the brainchild of, a little-known outfit based in Scotland called DMA Design. A company now firmly allied with Nintendo.

Another conclusion drawn from Nintendo's publicized alliance with two (relatively) small software partners was that these had to be just the tip of the iceberg. Any larger developing outfits would be reluctant to publicly tie its colors too firmly to just the one mast, and rather remain anonymous while it perused additional deals with Sega and Sony. Nintendo's reaction to this hypothesis, however, remained a firm "No comment."

DMA Design went on to produce the quirky (but pretty darn good) *UniRacers* for the SNES, much as Rare's Project Reality would lead to the technology that made *Donkey Kong Country* possible on the SNES. It is still unclear what its first 64bit project will be.

Date:  
May 5, 1994

## Headline:

**Project Reality will be cartridge based**

## News:

The Project Reality home unit will not incorporate an internal CD-ROM drive. Games will come on a standard cartridge format, effective memory size having been expanded as a result of proprietary compression techniques. Nintendo claims that 100 Mbits of data can be stored on a 24 Mbit cartridge.

"Nintendo certainly has not turned its back on CD," explains NOA's Peter Main. "We've already done a lot of work in that area, but we don't believe that, as yet, the public has been convinced CDs can deliver the sort of games that they want. Ultra 64 has been designed to allow for a CD add-on and we will make a move when CDs fulfill one of two criteria: Either we can deliver a drive at the right price which plays games at the right speed, or there is a demand for products that simply don't require speed."

**Official line:** "[Project Reality will be a cartridge system] to allow for the fastest processing technology available. This decision enables Nintendo's platform to overcome the obstacles of slow processing speed that has stalled sales of optical-based videogame systems such as CD-ROMs."

Nintendo Press Release

**Bottom line:** Don't believe it. Any "slow processing speed" associated with CD-ROMs can be fixed with the addition of more RAM and clever disk-access design. Besides, RAM is faster than the ROM Nintendo plans to use. No, there are two definite (and one possible) reasons why Nintendo is sticking with "old fashioned" cartridges: 1) By removing the CD-ROM drive for the Project Reality home system, Nintendo is basically reducing the retail price by at least \$100. Amid rumors that SGI is having a hard time reaching Nintendo's alleged goal of \$55 per chip, this cost-cutting exercise is

essential if Project Reality is to remain "below the \$250" price frame.

2) Nintendo has never made much money on hardware sales; the real videogame fortune is to be made with software (the old "sell the razor today to sell razor blades forever" theory). Nintendo could never hope to maintain a monopoly of CD production, and prefers the stranglehold it maintains over its software producers at the mercy of the ultra-expensive cartridge manufacture business.

3) Secretly, Nintendo has ambitious network plans. Why bother incorporating an expensive CD-ROM drive if in two years it will be redundant? Games delivered by cable (similar to TV) is the future of videogaming (see **NG 2**) and Nintendo has big plans for Project Reality to be a big part of it when it happens.

Date:  
June 9, 1994

## Headline:

**Alias Research (Toronto) to create customized 3D graphics development tools for Project Reality**

## News:

Alias, one of the "Big Three" computer graphic tool developers (along with Softimage and WaveFront), is hired to produce the software tools necessary for game developers to make the most of



Alias' images illustrate just what an artist can do when blessed with software to match the power of Silicon Graphics hardware



SGI's hardware. These tools will create the core of the "Project Reality Development System." As part of the deal, Nintendo purchased a large number of Alias *PowerAnimator* licenses for in-house use, making it one of the largest 3D development sites in the world.

**Official line:** "Alias research is the clear leader in their field — developing software technology that enables artists and game designers to create next generation characters, environment, and imagery for a new class of videogame systems."

Howard Lincoln, Chairman, NOA

"Alias' unique product strengths — including Digital OptiFX, breadth of 3D animation and modeling tools, and system openness — will enable game developers to create way cool imagery that goes far beyond what consumers have experienced in the past."

Ray Miller, VP Strategic Development, Alias Research, Inc.

**Bottom line:** This latest act was seen as Nintendo securing some state-of-the-art salsa to accompany Silicon Graphics' chips. It also typified the big game companies' scramble for strategic partners, a trend that saw Sega ally with Alias' rivals Softimage.

Alias' credentials were beyond reproach. With a client list that included industrial Light and Magic (ILM) and Walt Disney Pictures, and having collaborated with SGI previously to create the special effects seen in *Jurassic Park*, *T2*, and *The Abyss*, Alias was the obvious software partner to join the consortium that



This month's cover illustration was brought to you by Alias *PowerAnimator*, Gary Mundle, Darrak Roisen, and SASA Corporation

Nintendo was already hailing as "The Dream Team."

It was also announced at this time that Rare would demo three (not two, as had been previously stated) revolutionary new games at Summer Computer Entertainment Show in June, in Chicago.

Date:  
June 23, 1994

### Headline:

Acclaim signs on as first  
SNES publisher to develop  
for "Ultra 64"

### News:

The Project Reality codename is dropped in favor of Ultra 64 (the new official moniker) in time for Acclaim to sign up as the first of Nintendo's SNES partners to develop for the new 64bit system. *Turok: Dinosaur Hunter* will be Acclaim's very first title, launching simultaneously with the Ultra 64 hardware.

**Official line:** "We have agreed to give our number one third party publisher immediate access to 64bit development information so that Acclaim can get started with its new game right away."

Howard Lincoln, Chairman, NOA

"By linking Acclaim's digital actor motion capture technology with the sophisticated capabilities of Nintendo's Ultra 64 system, we plan to bring interactive entertainment to new heights."

Robert Holmes, President, Acclaim

**Bottom line:** *Turok* not only marks Acclaim's first Valiant Comics-based game announced since entering an agreement to purchase Voyager Communications (publisher of Valiant Comics), but the Ultra 64's first game from an established 16bit software producer.

Citation of Acclaim's "award-winning motion capture technology" was perhaps a tad audacious — the only Acclaim-badged fruit of this multimillion dollar studio



Nintendo's relationship with Williams and Acclaim seemingly ensured *Mortal Kombat 3* for the Ultra 64, but Sony had other plans

investment is the unreleased *Alien Trilogy* game. Having said that, however, Warner Brothers evidently utilized the facility in the production of an upcoming movie *Batman Forever*, and *Duel* (a visual demonstration of the technology) received a specially created award at *Nicograph '93* — Japan's largest annual computer graphics and interactive visualization techniques conference.

As for *Turok*, well, he began his dinosaur hunting career at Dell Comics in 1954. He's an Kiowa Native American whose adventures in the ancient lost land lead to both dinosaurs and primitive tribesmen being catapulted into the future, and, inevitably, ongoing battles with *Turok*.

Acclaim is a company founded on marketing muscle, rather than any real gaming expertise. Producers of a consistent stream of poor-to-mediocre 16bit titles, its success rests on its ability to secure the best licenses, and then market them effectively. It is in this role that Acclaim was half of the partnership with Williams that conquered the world with *NBA Jam* and *Mortal Kombat*. And now Nintendo has both on the payroll.

The question is, of course, whether lightning can strike not just a second time but a third. Acclaim may have been one of the very, very few games companies to actually make money in 1994, but this wasn't due to any solid base of quality output. And with *Mortal Kombat 3* (surely the jewel in William's crown of arcade games) already secured by Sony for the PlayStation, Acclaim will have to dig deep to come up with a worthy substitute. One thing's for sure, though, it'll be marketed very well.

## ng hardware

Date:  
June 24, 1994

## Headline:

**Killer Instinct and Cruis'n USA previewed behind closed doors**

## News:

SCES (Summer Consumer Electronics Show), Chicago, witnesses the first semipublic display of Ultra 64's power. *Killer Instinct* and *Cruis'n USA* are demonstrated behind closed doors to select members of the press (NEXT Generation included, of course).

**Official line:** "Game players will be able to play these same games with no compromise in graphics, sound, or game play next year at home when Ultra 64 is launched."

Howard Lincoln, Chairman, NOA

**Bottom line:** Except, of course, that the innards of *Cruis'n USA* are 0% Ultra 64 and 100% Williams' own arcade technology. Once again, it's proved that there are lies, lies, and damned videogaming lies. But, that didn't stop an enthusiastic reception to Nintendo's two creations — both titles oozed quality even at this early stage.

Hardly adventurous (what could be safer than a fighting game and a driving game to launch a system?), but a direct challenge to Sega's power couple, *Virtua Racing* and *Virtua Fighter*. Nintendo had its solid software base on which to progress.



A *Killer Instinct* shot from the home version

Date:  
July 18, 1994

## Headline:

**Ultra 64 will utilize breakthrough high-speed memory technology from Rambus, Inc.**

## News:

Utilized by Toshiba, NEC, and 11 others, Rambus technology enables bandwidths of up to 500MHz (compare to 30MHz or 66MHz as current PC levels). This technology, in addition to SGI's hardware, boosts Ultra 64's processing power "to make possible unparallelled 3D imagery."

**Official line:** "The ability of our technology to generate affordable, high performance bandwidth is a major step in allowing consumers to play in the kind of 3D worlds that have previously been available only in high-end graphic workstations."

Geoff Tate, President, Rambus Inc.

**Bottom line:** Featuring breakthrough DRAM architecture and 500MHz processor-to-memory interface, the Rambus technology represents the largest

leap in performance since introduction of DRAM more than 20 years ago (according to Rambus). Another strategic partner for Nintendo, and another boost to Ultra 64's tech specs as rumors concerning the awesome power of Sony's PlayStation start to circulate within the gaming community.

Date:  
October 5, 1994

## Headline:

**Williams is working on an advanced version of Doom for Ultra 64**

## News:

Under creative direction from Id Software (Doom's original creators), VMS announces that Williams Entertainment, Inc. is working on a new, advanced version of Doom for Ultra 64.

**Official line:** "The new Doom will contain many unique features including new game play levels, additional characters, and enhanced graphics."

Byron Cook, President, Williams Entertainment



*Cruis'n USA* (from Defender creator Eugene Jarvis) gave an early indication of Ultra 64's power



"It's a new chapter in the Doom story, specifically developed to take full advantage of Ultra 64's technology."

Jay Wilbur, Business Manager,  
Id Software

**Bottom line:** The no-brainer conversion leapt upon by every hardware manufacturer on the planet recreates itself yet again. Good news for gamers is the commitment by Nintendo to ensure a 'Mature' rating for *Ultra Doom* (Id Software's opinion of blood and gore? "We're always looking for more"). And of course, all these versions of *Doom* make for great head-to-head performance comparisons...



MultiGen's skill is in producing 3D "virtual worlds" in which realtime movement is possible — a powerful partner for Alias

So while Alias provides the means to create stunning artwork, MultiGen has authored a *NinGen*, a custom version of its graphics package to enable Ultra 64 developers with realtime graphics. A powerful partnership indeed.

Date:  
October 11, 1994

## Headline:

MultiGen to provide 3D  
development tools for Ultra 64

## News:

MultiGen, "creator of realtime 3D worlds," will create 3D development tools for Ultra 64.

**Official line:** "This alliance with Nintendo represents a huge leap in expanding the reach of high-end technology that was available only to a limited number of government and corporate users just a few years ago."

Dennis Yeo, President & CEO,  
MultiGen

**Bottom line:** Currently employed for the creation of high-end flight sims and VR environments, MultiGen, San Jose, CA, is the obvious choice to partner Alias in the development of 3D modeling tools for Ultra 64. In fact, as a result of the Nintendo introduction, the two companies announced a collaboration to produce *PowerGen*, a high-end authoring tool featuring the high-level modeling, animation, and rendering features of Alias with the realtime optimization and texture-mapping capabilities of MultiGen.

Date:  
November 21, 1994

## Headline:

Shigeru Miyamoto to work with  
Paradigm Simulation to  
produce 3D Ultra 64 game

## News:

Dallas-based Paradigm Simulation (authors of *Vega*, *VisionWorks*, and *AudioWorks* — spectacular graphics software) is to work with Mr. Shigeru Miyamoto (the creator of *Mario*, *Donkey Kong* and *Zelda* — interviewed in *NG 2*) and his team to create a 3D game for Ultra 64. The game will be completed in time for the launch of the Ultra 64 home system.

**Official line:** "We're honored to be working with Mr. Miyamoto's team, true geniuses in the world of home entertainment. Paradigm Simulation will provide Mr. Miyamoto and his Nintendo Development team with the best technical knowledge in the 3D virtual reality industry."

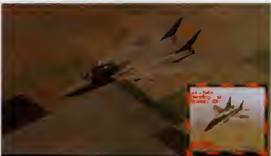
Ron Toupal, President,  
Paradigm Simulations

**Bottom line:** Founded in 1990, Paradigm has quickly become a global force in visual and audio simulation and VR software for use on (wait for it) Silicon Graphics computers. Although most renowned for providing content-creation tools, gamers will recognize Paradigm as the producers of the *XDV-7 Vampire* game for the Magic Edge state-of-the-art virtual reality center. It has also been heavily involved with both industrial and military VR projects. A byproduct of the planned game will be a series of development tools to add to the Ultra 64 content-creation package available to all developers.

Shigeru Miyamoto, of course, needs no introduction and the confirmation of his involvement in an Ultra 64 project was the piece of the jigsaw puzzle die-hard game fans around the world were eagerly waiting for news of.

The question is, of course, what game is the partnership working on? While a 64-bit *Mario* title may be the obvious choice, the smart money is on *PilotWings 2*, a game that Mr. Miyamoto has publically stated his enthusiasm for, and a concept perfectly suited to Paradigm's experience and skills. It's also been tipped as the game most likely to accompany the initial hardware as a pack-in game come Ultra 64's launch.

At the time of going to press, however, Paradigm stated that they had not in fact started work on the project.



Mr. Shigeru Miyamoto, the most influential game designer in the world (top). Paradigm's flight sims are state of the art (below)

## ng hardware

Date:  
January 4, 1994

## Headline:

Nintendo joins forces with  
GTE Interactive Media to  
"explore new technologies"

## News:

In a deal designed to jointly develop, market, publish, and, most interestingly, distribute videogames, Nintendo joins forces with one arm of communications giant, GTE Interactive Media.

**Official line:** "We're excited about using our global network of creative talent and advanced technological capabilities as a resource for one of the world's most successful videogame companies... as we move forward toward the platforms and networks of the future."

Richard Robinson, President,  
GTE Interactive Media

"[GTE Interactive Media's] unparalleled ability to engage top creative talent for collaborative content development and focus on new technologies will be an invaluable resource to Nintendo."

Howard Lincoln, Chairman, NOA

**Bottom line:** GTE Interactive Media was founded in 1990, and now has the honor of being the first developer ever to co-publish a 16-bit title with Nintendo, the FX2-chip powered *FX Fighter*. But while this most immediately tangible love child of the high-powered marriage fails to excite, Nintendo and GTE is a partnership capable of world-conquering feats. GTE is the largest US-based local telephone company and the second largest cellular services provider in the US. With nearly \$20 billion revenues in 1993, GTE is the world's fourth largest publicly-owned telecommunications company.

"Other projects include support by GTE Interactive Media for the new Nintendo Ultra 64 home videogame system," offers a Nintendo press release, "... as well as network gaming, and interactive service delivery with the GTE Corporation. As the entertainment,

consumer electronics, and communications industries converge, the partnership with GTE gives Nintendo the potential to reach out its huge brand-loyal base of players in exciting new ways."

With this one alliance, Nintendo acquired the business muscle and know-how to complement its own expertise in interactive TV as a result of its successful GateWay system. Remember that Nintendo has twice tried to implement gaming networks in Japan, and is currently involved in a satellite scheme in Canada (see page 18). So with play-by-cable nearly acknowledged as the ultimate goal of Nintendo's plans, Nintendo is able to respond to those who thought it was crazy not to include a CD-ROM drive in the Ultra 64! The bottom line is that the system simply doesn't need one.

Well... eventually it may not need one. The infrastructure needed to make this dream a reality is years away from completion. So is it unrealistic? Too ambitious? Maybe. But that's what critics said about the deal with Silicon Graphics.

Date:  
January 5, 1995

## Headline:

SGI's Ultra 64 chip set is  
completed

## News:

SGI completed design and testing of the chipset that will become the heart and soul of the Ultra 64 home unit. Third party developers are now in a position to start working on finalized specs — and it is revealed that "a number of not-yet-disclosed, third party publishers are also currently working on titles exclusive to the Nintendo Ultra 64 format."

**Official line:** "The engineering team is in fast-forward mode. We're moving to silicon in January — that's tech talk for saying the hardware designs are complete and we're readying for mass production."

Tom Jermoluk,  
President & COO, SGI

**Bottom line:** Right on schedule (or against all odds, depending on whom you talk to) SGI finalized the chipset for Ultra 64. The single biggest hurdle to Ultra 64 really becoming Project Reality has been negotiated. The question is, of course, at what price?

Rumors (some of which started by those creative folk at 3DO, Sega, and Sony) would suggest that the \$55 (maximum) Nintendo had been willing to pay per Ultra 64 bit chipset doesn't sit too comfortably with the \$95 (minimum) that SGI says the chips can be produced for.

While some immature observers jump to the conclusion that Ultra 64 will be entirely scrapped, a more realistic conclusion is that Nintendo may have to abandon the "below \$250" price point. Of course, Nintendo denies that anything is wrong and courteously reminds enquiring minds that you shouldn't believe everything you hear at CES.

The final Ultra 64 tech specs and performance estimates (based on information from Nintendo and independent sources) are as follows.

## Ultra 64 Final Specs

## CPU:

- 64bit internal/external RISC datapath (custom R4200 or R4300 MIPS) @ 105.8MHz
- 500MB per second bandwidth

## Graphics:

- 64bit "Reality Immersion" Graphics processor @ 80MHz in enhanced mode
- 320x224 to 1,200x1,200 resolution (up to HDTV standard) in 24bit color

## Sound:

- 64bit sound DSP @ 44.1KHz
- 64 sound channels

## Performance:

- 100,000 real-time texture-mapped polygons per second
- Real-time anti-aliasing
- Real-time ray tracing
- Real-time tri-linear hardware interpolation
- Real-time load management

## Ultra 64 Hardware Features

## 1. Realtime Anti-Aliasing



Hard to see here, but without anti-aliasing, images flicker as they approach

The Ultra 64 hardware includes three graphics features that its rivals, such as PlayStation and Saturn, have to do in software, which eats up much of their processing power. The graphics seen here are running on a Silicon Graphics Ultra 64 hardware emulator

## 2. Load Management



The first two pictures are taken as the game camera 'flies' over the town. The familiar effect of more detail 'popping' onto the picture can be seen on the water tower. Load Management solves this

## 3. Tri-Linear Mip-Mapped Interpolation



Any Doom player (left) will know that getting too close to a texture-mapped object looks dreadful. Tri-Linear Mip-Mapped interpolation (TLMMI) enables you to get as close to this shark as you like



SGI executives first displayed Ultra 64's power at CES



SGI's George Zackary running an Ultra 64 emulator

Date:  
January 5, 1995

## Headline:

Spectrum Holobyte to produce *Top Gun* for Ultra 64

## Newbit

The latest third party developer to join the Ultra 64 list is Spectrum Holobyte, the flight simulation specialists. *Top Gun* (based on the Tom Cruise/Kelly McGillis /testosterone movie) is a flight sim designed to appeal to novices and experts alike, and will be completed in time for the launch of Ultra 64 in the fall.

**Official line:** "Nintendo is clearly leading the way into the next generation."  
Patrick Freely, President and CEO,  
Spectrum Holobyte

"Spectrum Holobyte brings a reputation for fast-paced, thrill-a-minute games."  
Howard Lincoln, Chairman, NOA

**Bottom line:** Not an obvious choice as a partner, but Spectrum Holobyte is a well-respected game developer, its biggest success being *Tetris* on the PC. Spectrum Holobyte also published SNES games (most notably *Star Trek TNG*, *Falcon*, and *Soldiers of Fortune*) and merged with Bullet-Proof Software (publisher of *Tetris* on the GameBoy) in 1993.

*Top Gun* is a also due for an appearance on the PC. Designed as an easy-to-pick-up yet involved flight game, *Top Gun* is planned to bridge the gap between serious flight-sim freaks, and more casual day trippers.

That *Top Gun* should be Nintendo's prime choice for Ultra 64 portrays a belief in Ultra 64's ability to attract an older, more cerebrally-motivated audience than previous machines, and in Ultra 64's ability to handle 3D graphics with ease.

At the time of going to press, Spectrum Holobyte had just started work.

Date:  
February 7, 1995

## Headline:

Software Creations to develop sound environment for Ultra 64

## Newbit

Software Creations (Manchester, UK) is hired to create a customized version of "sound tools" to become an integral part of the Ultra 64 development tools package, and secondly, to produce a 3D game for the machine itself.

**Official line:** "Our proven ability to be on the cutting edge of games technology will be of enormous importance to us in the coming years."  
Richard Kay, MD, Software Creations



# ng hardware

**Bottom line:** Software Creations is perhaps best known for having created Ken Griffey Jr Presents: Major League Baseball for the SNES. But the UK team is also responsible for some of the leading edge sound tools in use around the world. It was later disclosed that Software Creations has, in fact, been working on this Ultra 64 sound tools project for the last 12 months, although, so far, there is no news as to what shape or form the game may take.

**Date:**  
February 10, 1995

**Headline:**

**Sierra On-Line to develop Red Baron for Ultra 64**

**News:**

Sierra's critically-acclaimed WWI aerial dogfight game is scheduled for appearance on the Ultra 64, due for release "shortly following launch." The game replicates the combat intelligence of 20 flying aces of WWI (including the Red Baron). Each airplane is modeled after exact structural and flight characteristics of the originals.

**Official line:** "The sights, sounds, and gameplay that will result from this agreement will be absolutely amazing."

**Tony Reyneke, President, Sierra On-Line (Eugene)**

"Red Baron on the Nintendo Ultra 64 will give players a flight simulation experience like never before."

**Howard Lincoln, Chairman, NOA**

**Bottom line:** It's what the press release doesn't mention about Sierra's Red Baron that makes this announcement so significant. Having already secured Top Gun from Spectrum Holobyte, having Shigeru Miyamoto and Paradigm (allegedly) working on Pilot Wings 2, what does Nintendo need with another flight simulation?

Well, Red Baron's unique attribute is its network play. As one of the

ImagiNation Network's main attractions, modern-equipped gamers have been enjoying multiplayer dogfights courtesy of Red Baron for the last nine months. That Ultra 64 embraces such an obvious network-ready game adds weight to those who would suggest that Nintendo has far more networking plans for Ultra 64 than have been revealed so far.

**Date:**  
February 15, 1995

**Headline:**

**Angel Studios to create a videogame exclusively for Ultra 64**

**News:**

Angel Studios, best known for the visual effects in *The Lawnmower Man*, and the computer animation in Peter Gabriel's *Kiss The Frog* video (winner of Best Special Effects by MTV 1994 Music Video Awards), is to produce a game for Ultra 64.

**Official line:** "[Angel Studios'] award winning work in music videos, motion pictures, and commercial will transfer nicely to the videogame industry — in particular to our 64bit system."

**Howard Lincoln, Chairman, NOA**

"We've waited patiently to enter the videogame industry until a vehicle was developed that allowed us to fully display our talents. Ultra 64 is that vehicle."

**Diego Angel, CEO, Angel Studios**

**Bottom line:** Founded in 1984, in Carlsbad, CA, Angel Studios has made a name for itself in the computer graphics and special effects community. It has also enjoyed a dash of success in the gaming world, having produced the animated sequences for *Ecco: The Tides of Time* on the Sega CD, and a series of critically-acclaimed Virtual Reality games such as *U to U*, *Pteranodon*, and *Orbit Defenders*. What remains to be seen, however, is how much it knows about putting a game for a home system together. The good luck for Angel Studios, then, is that it is also benefiting from the guidance of Shigeru Miyamoto and his team.

With a strong background in Virtual Reality software design, Angel Studios is a strategic partner who's full relevance may only become apparent a lot further down the Ultra 64 road.



Angel Studio's work includes music videos



Of course, this pre-rendered image is not indicative of the standard to expect from Ultra 64. It does, however, give us a glimpse into the minds of Angel Studios, one of Nintendo's Ultra 64 partners

Date:  
February 24, 1995

Headline:

GameTek announces  
development of Robotech  
for Ultra 64

News:

Miami-based GameTek announced the production of a game based on the popular anime cartoon, *Robotech*. Riding on the wave of a successful TV run, *Robotech*, the game, will feature large robot warriors.

**Official line:** "Based on a popular cartoon series, *Robotech* will enable players to become fully immersed in a world of real-time 3D character animation."

Bruce Lowry, President, GameTek

"Our relationship with GameTek dates back to its development of games for the first Nintendo Entertainment System. It's a pleasure to continue our relationship by making it part of the Nintendo Ultra 64 Dream Team."

Howard Lincoln, Chairman, NOA

**Bottom line:** Yet another mysterious choice of both partner and game, for no other reason than plenty of more eligible candidates seem to be there for the picking. GameTek has failed to release a spectacular game in its history, remaining most well known for its home versions of *Jeopardy* and *Wheel of Fortune*. This deal with Nintendo could, however, signify a change in fortune for the publisher.

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*Robotech* promises to feature much of the high-quality computer art that made the Japanese animated TV series such a cult hit

## UNSUBSTANTIATED RUMORS

It's never the full story, the story of rumors that the Nintendo Ultra 64 will be the first console to feature a real-time 3D character animation game. The rumor is that the Ultra 64 will be the first console to feature a real-time 3D character animation game. The rumor is that the Ultra 64 will be the first console to feature a real-time 3D character animation game. The rumor is that the Ultra 64 will be the first console to feature a real-time 3D character animation game.

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Rocket Science, a New York City Silicon Studios (aka) company, and a number of other developers are working on the Ultra 64. THQ's *Dark Forces* and *Star Wars* are also in the pipeline. Other developers include Square Soft, who is developing a real-time 3D character animation game. Other developers include Acclaim, who is developing a real-time 3D character animation game. Other developers include LucasArts, who is developing a real-time 3D character animation game. Other developers include Interplay, who is developing a real-time 3D character animation game. Other developers include Spielberg, who is developing a real-time 3D character animation game.

Other developers include Nintendo, who is developing a real-time 3D character animation game. Other developers include Rare, who is developing a real-time 3D character animation game. Other developers include Capcom, who is developing a real-time 3D character animation game. Other developers include Konami, who is developing a real-time 3D character animation game. Other developers include Sega, who is developing a real-time 3D character animation game. Other developers include Nintendo, who is developing a real-time 3D character animation game. Other developers include Rare, who is developing a real-time 3D character animation game. Other developers include Capcom, who is developing a real-time 3D character animation game. Other developers include Konami, who is developing a real-time 3D character animation game. Other developers include Sega, who is developing a real-time 3D character animation game.

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# The **ripe** stuff

Apple's growth during the past 20 years has been phenomenal. But now, as it reaches maturity, the maverick of the computer industry is going mainstream. **NEXT Generation** explores the history of the company that caused a revolution

**F** or a company that has been jealously protective of its proprietary technology for so long, 1995 will be a radical year for Apple. The appearance of Mac clones; the launch of Bandai's Power Player, based on a runtime version of the Mac OS; and continuing development of the common hardware platform with IBM, Motorola, and others represent less of a tactical shift for the company than a complete revision of its rulebook. And, in some senses, a gamble. But since its inception 15 years ago, Apple has always had a certain visionary nature.

**Super Bowl** Sunday, 1984, and Apple chooses the break at the end of the third quarter to run an ad for its new computer. This is the most expensive piece of airtime in the world, clocking in at \$1 million for 60 seconds. The advertisement features an Orwellian scene, directed by Ridley Scott, and with the same stark, bleak images that peppered his film *Bladerunner*. Slack-jawed drones in a drab, monochrome world stare numbly at a ranting dictator filling the screen above them. The sense of claustrophobia and oppression builds until suddenly a woman — representing the only color in the place — is seen running through the auditorium pursued by security police. Defiantly, she hauls back and throws an Olympic hammer. It arcs through the air and smashes into the

screen, which shatters into thousands of fragments. At that point the voice-over cuts in: "On January 24, Apple Computer will introduce Macintosh and you'll see why 1984 won't be like 1984."

It was an advertisement that grabbed people's attention. Phones rang off the hook at the network, the advertising agency and at Apple. News broadcasts across the country elevated its screening to the status of a news item. The advert, everyone agreed, was simply revolutionary.

But if the commercial broke the rules to make an impact, that was nothing compared to the waves the Macintosh was about to make in the personal computer market. Just over a decade down the line, the original Apple Mac looks primitive. Its CPU was a Motorola 68000 running at approximately 8MHz. It had no hard drive, just 128K of RAM, 64K of ROM, one 3.5-inch disk drive, and a 9-inch, black-and-white monitor. And there were only three pieces of software available for it at launch: *MacWrite*, *MacPaint*, and a spreadsheet application from Microsoft. Not only was it not compatible with IBM machines (a huge drawback in marketing it to corporate America), but it was also incompatible with

its immediate ancestor, Lisa, and with Apple's bestselling product, the Apple II. What it did have, though, was a mouse, a high-resolution screen and the most innovative graphical user interface (GUI) seen outside a research lab.

Since then, Macs have been notoriously undersped and overpriced compared to IBM PCs and are only now managing to achieve parity. But despite the machine's disadvantages, there are now about 17 million Macintoshes worldwide. And most of that is down to the WYSIWYG GUI. What You See Is What You Get.

## Apple was

founded on April Fool's Day, 1976, by Steve Jobs and Steve Wozniak, two kids who grew up in the strange

atmosphere of the nascent Silicon Valley, a culture that mixed post-60s hangover with the new dawn of technology. Both were loners and both had an almost obsessive fixation on electronics. Their first business venture together, earlier in the decade, had been in 'phreaking', or phone hacking, selling blue boxes that Wozniak (almost universally known as Woz) had designed in the dorms at Berkeley, where he was studying engineering. Woz's boxes cost

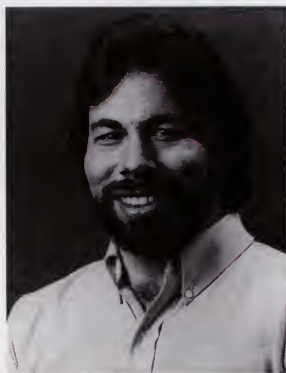
**It got people's  
attention. Phones  
rang off the hook  
at the network, the  
advertising agency,  
and at Apple**



# ng special



Thankfully, Apple's image has become slightly trendier since the 1970s. The Apple I (center right), the Apple II (top left, and right), and the disastrous Apple III (above and middle) were superseded by the Macintosh



Steve Wozniak (above), cofounder of Apple with Steve Jobs, was the principal technical talent behind the company's early machines



\$150 to buy; most others cost \$1,500 to make.

Then Woz stumbled across the Homebrew Computer Club. The club

had been established because of the interest generated by what was really the first personal computer, the Altair 8800. The Altair was a kit and there wasn't really an awful lot that you could do with it, but with the idealistic notions of the 1960s still rattling round the Valley, it was regarded as having the potential to cause a revolution. This was the opportunity to take technology out of the grasp of the big corporations and put it into the hands of ordinary people, and a lot of folk from Silicon Valley institutions like Hewlett Packard and the Stanford AI labs started turning up at Homebrew and sharing what was (supposedly) highly confidential business information.

**Woz was** working at Hewlett Packard and moonlighting over at Atari, where Jobs was employed (the duo created *Breakout* for the company), but he still couldn't afford an Altair or even the Intel 8080 chip that powered it. Then MOS Technology brought out its 6502 microprocessor for a mere \$25 and Woz wrote a BASIC interpreter for it, using that as the kernel for a computer that could outperform the Altair while using a fraction of its hardware. This was to become the Apple I, which was essentially just a circuit board with 4K of onboard memory. Hewlett Packard, to which Woz offered it first, thought it was too Mickey Mouse and many members of Homebrew were equally dismissive, thinking that the Intel microprocessor was the way forward. Jobs, however, was excited and persuaded Woz to go into business.

Jobs sold his VW van and Woz his Hewlett Packard programmable calculator, and the pair managed to raise about \$2,000 between them. Their first order came from The Byte Shop, a Silicon Valley store run by a Homebrew member, who wanted 50 Apple Is. They started assembling the boards in Jobs' sister's bedroom, moved production down into the garage, and began knocking them out for a price that has had evangelists foaming at the mouth ever since: \$666.66.

It was Jobs who had the vision. By the beginning of 1977, with the Apple I selling in only 10 stores in the US, he'd managed to pull almost \$350,000 of venture capital into the fledgling company.

Separating the early history of Apple from the lives of Wozniak and — in particular — Jobs is incredibly difficult. A powerful mythology has grown up around the early days of the company, and while Woz is often portrayed as a high-tech, hippy-skewed upgrade of the classic absent-minded scientist stereotype, Jobs is often sketched as an almost Messianic figure. A socially clumsy, egocentric, wild, and often rude Messiah, admittedly, but also someone who could hold an audience in the palm of his hand and sell them his visionary dreams for the future.

Apple was certainly stamped with his personality. Jobs saw much of what they were doing (particularly the introduction of the Macintosh) as giving computers to the people. Giving them the liberating technology to do what they wanted. Apple was the pioneer and companies like IBM were the enemy: sluggish, hidebound, and ready for extinction. "I've never trusted a computer I couldn't lift," went the joke.

Inevitably, as Apple grew and became more corporate, this spirit gradually faded. Woz jumped ship, rejoined, and then jumped again. Jobs was pushed out in mid-1985 by John Sculley, the man he himself had hired away from PepsiCo a couple of years previously. Jobs did give Apple the Mac, but prior to the Mac, the company made a computer which, in terms of market share, is still one of the most popular ever made.

**1977 was** the year that made Apple, with the introduction of the Woz-designed Apple II. The II was several evolutionary steps ahead of Apple's original product. It came in a case, for a start, was fully assembled and pretested, had a keyboard, a power supply, and stored programs on audio cassette, and retailed for \$1,298. More importantly, it was the first mass-market personal computer with the ability to generate color graphics. Nothing spectacular, admittedly — a four-color display with a 280x192 resolution — but at the time it set the market on fire.

The Apple II was an 8-bit machine with a MOS 6502 CPU at its heart, clocking in at 1.023MHz. It also had seven expansion sockets to enable customizing — and it was

a machine that was designed to be customized. Woz and his engineers were all hobbyists and hackers; essentially, they'd designed the machine for themselves.

That did not stop it from being a phenomenal success, though. Between 1977 and 1978, Apple's sales increased from \$770,000 to \$79 million. The II went through many evolutionary changes in its

17-year history and, by the time the product line was eventually discontinued in November 1993, five million of those units had been sold across the globe.

**Jobs could hold an audience in the palm of his hand and sell them his visionary dreams for the future**

One of the main initial factors for the II's success was the introduction, a year after its launch, of the Disk II. Another Woz-designed product, this 5.25-inch drive and disk operating system was the fastest minifloppy then offered by a computer manufacturer. But more importantly, it transformed the II from a gadget into an appliance. Due to the

increased memory available, serious software could now be developed for the system. One of these packages was *VisiCalc*, a financially oriented spreadsheet program invented by a pair of students at MIT. Launched in 1979, *VisiCalc* was one of the first pieces of software to sell the machine it was running on (about 20% of IIs were bought specifically to run it) and it ushered Apple into the business community, pitting it directly against IBM (or 'The Evil Empire', as Jobs christened it, paraphrasing Ronald Reagan).

**For Apple**, in the early 1980s, the II became a license to print money. And it needed that money after the debacle of the Apple III. The III was a stopgap, first announced as far back as September 1980, when it was hoped that the Macintosh would appear in early 1982. Apple had simply panicked, looked at IBM muscling in on what it considered to be its territory, and rushed out what was basically an ill-conceived and faulty machine.

But despite its faults, it was Apple's most sophisticated computer yet. The unit had a 6502B CPU running up to a maximum of 1.8MHz and was capable of processing 0.75MIPS; it packed 256K RAM and 4K ROM, as well as the most advanced OS Apple had yet produced — the Sophisticated Operating System. It didn't

# ng special



John Sculley (top left), formerly of Pepsi, ousted Apple founder Steve Jobs in 1985. The Mac's ill-fated cousin, Lisa (top right), was the first GUI-based computer aimed at the business community. It flopped. Apple's first attempt at a portable Macintosh (above)



The original Macintosh (middle) is now regarded as a 20th-century design classic; another model, the Mac II (above), wasn't quite as pretty





have many of its originally promised features, though, and in a lot of cases it simply didn't work.

The first models off the production line would only run when their cases were unbolted, and when the machine actually hit the market the problems snowballed. The fine-line boards of the Apple III used shorted, the clock display crashed regularly, as did the rest of the machine, due to corrosion between the main board and the memory board; there was little software available, and what there was was riddled with bugs; and the manuals were stuffed with errors. The first 14,000 units had to be recalled and replaced.

If the Apple II was the cash cow of the company, the Apple III was simply the cash cow. Its peak sales never approached profitability, and although the problems were sorted out and an improved III+ later released, it never really recovered. It was this that gave IBM the chance to introduce the PC in August 1981 and gain a virtual free run at the market (Apple did virtually nothing until 1983), effectively establishing an image and an installed userbase that Apple would never really be able to break.

**The GUI** (graphical user interface), and Apple's salvation, arrived with Lisa. Lisa and Macintosh were developed in parallel by Apple in an internal atmosphere of bitter rivalry and creeping paranoia. They were different machines aimed at different markets: Lisa was principally aimed at the business community that Apple had hitherto virtually ignored. Eventually, after performing with tremendous indifference in the marketplace, Lisa sank, but the GUI and Macintosh lived on.

The concept of a human computer interface had originated with people like Douglas Engelbart and J.C.R. Licklider in the mid-1950s and early 1960s. Engelbart had held the vision of people sitting in front of their own computers and interfacing with them via a cathode-ray tube (needless to say, this was very daring in the days of batch-processing mainframes), and Licklider had been put in charge of the Pentagon's Advanced Research Projects Agency in 1962.

ARPA lasted through most of the 1960s and its research programs had a profound impact on the development of computing. Licklider funded a project at the Massachusetts Institute of Technology that would allow multiple users to access a mainframe at any given time, Engelbart

developed a prototype computer with screen, keyboard, and mouse, and researchers at the University of Utah began work on graphics packages. At the time of the Vietnam war, though, the idealism that attracted researchers to Washington under the Kennedy administration had all but vanished, and ARPA was forced to work on projects with very specific military purposes.

About the same time, Xerox decided to move into computer research and built a research center near the Stanford University campus: the Palo Alto Research Center. ARPA research moved almost exclusively to PARC. The first result was the Alto, one of the first computers designed for use by one person. It had a mouse (an adaptation of Engelbart's original design), a high-resolution screen, and a keyboard, and could store 64K of data.

The software was designed by a separate team under Alan Kay. It was Kay who invented the WYSIWYG acronym and his team that developed some of the first icon-driven software. The bitmapped screen the Alto used enabled text and graphics to be combined for the first time and Kay set out to develop programs that would imitate the conventional office desktop onscreen. The Alto gave you windows, italics in documents that actually looked like italics rather than strings of weird code, and icons representing different functions, all controlled simply by pointing and clicking with a mouse. When Steve Jobs saw it all, it just blew him away.

Jobs had been permitted to PARC in return for Xerox (which at the time was looking to invest in the burgeoning home computer market) being allowed to buy 100,000 very scarce Apple shares. It was to prove a costly maneuver. Xerox had spent \$100 million in a decade on research at PARC and now Jobs walked out the door with its ideas and a significant handful of its employees. Apple itself was to spend another \$100 million over the next two years developing GUI-based software and although Xerox (belatedly) filed a suit against the company alleging that its copyrights for the Lisa and Macintosh GUIs were invalid, most of its arguments were dismissed by the courts.

**Xerox had spent more than \$100 million in research at PARC and now Jobs walked out with its ideas**

**Apple has** a long tradition of niche marketing dating back to the Apple II, which the company often gave away to educational establishments via a system of grants and programs. Part of this was pure evangelism, but whichever it was, the Apple Education Foundation established in 1979 has effectively cornered the US education market with a 60% share. On a global scale, that share dips to 28%, but education still counts for 20% of net sales.

The Mac has also managed to virtually become the publishing industry standard since its launch, and Desktop Publishing (DTP) is credited as being one of the most significant factors in its survival. Figures are slightly more hazy for this sector, but it's estimated that Apple has a 48% share of that industry in the US. It's a share that is probably going to expand, too, with the introduction of the RISC-based Power Macs, offering faster processing speed which, in turn, enables much speedier opening, insertion, and manipulation of large graphic files. Claims for the increased speed of Power Mac over Pentium can get wildly fanciful, but it seems it is at least two to three times faster out of the box, with the potential for far greater acceleration.

And, while Apple is planning to expand in many areas over the next few years, the Power Mac is at the core of its plans. Its roots lie in the historic agreement

ratified by Apple, IBM, and Motorola in October 1991, which not only set the long-term goal of integrating the Mac OS into IBM networks, but also laid down the architecture for a new family of RISC processors, the Motorola-manufactured PowerPC chips.

All three companies had good cause to sign the agreement. The incompatibility of Apple's operating system with the PC had resulted in the machine grabbing a meager 10% of the business market despite its success in a couple of specific sectors. IBM was looking to break the dominance of Microsoft and Motorola was attempting to do the same thing with Intel. RISC, with greatly enhanced performance and far cheaper production costs than the traditional CISC processors (up to 85% cheaper, according to some sources), simply seemed to be the logical

## ng special



way forward for all people concerned, despite its extreme divergence from Apple's traditional business philosophy.

The first Power Macs based on the Motorola PowerPC 601 chip were launched in March 1994. There were three models (plus complementary AV multimedia variants) available, aggressively priced at roughly the same level as the (then) high-end Mac Quadras. Performance was a marked improvement on the 680x0-series CISC-based Macs, with even the entry-level 6100/60 (clocked at 60MHz) outperforming a comparable Pentium chip with the same clock speed by an average of 24%. When you get to the high-end systems, an 8100/80 outperforms a 100MHz Pentium by an average of 21%.

Sources at Apple suggest that the Power Macs are already "well on their way" to an installed userbase of one million machines worldwide. And the speed increases provided by the increased amount of native software coming onstream (as opposed to old programs

running under emulation) means that number is likely to continue to grow.

**But the 601** is only the first in the series of jointly developed RISC CPUs. Soon the PowerPC 603 will enter the fray. Essentially, this will offer the same performance as the 601, but the differences are in its size (smaller), its power consumption (reduced) and its cost (cheaper). This should make it ideal for a new generation of entry-level Power Macs as well as enabling the portable PowerBook range to upgrade to a RISC architecture — both of which should be happening later this year. Projected after that are the 604 (current forecasts say this is the level at which IBM is planning to enter the market), which should be two to three times faster than the 601, and the 620, four to six times faster and aimed at the high-end workstation/server market.

The PowerPC agreement effectively broke the mold and booted out the last remaining vestiges of the Apple mythology from the wonderful days of Jobs and Wozniak. Apple was still a pioneering force, but all traces of the legend of the spirited little Silicon Valley startup going head to head with the

voracious, corporate monster IBM were finally put to rest. Apple was finally sleeping with the enemy.

If that was hard for some factions within the organization to accept — and for an installed base that sometimes seemed more like a fan club (alt.sys.mac.advocacy gives quite a good illustration of that) — the next changes were even worse. Finally, after 10 years of persuasion from customers, industry analysts, and people high up in Apple itself, the company announced plans to license the coveted Mac OS.

Clones make such sound economic sense that it's a wonder Apple had retained its OS as proprietary technology for so long. Initially the plan was for the "Expanded Markets" approach (as the company like to refer to it) to have a very narrow focus. Apple would license the latest version of its OS, *System 7.5*, and elements of its Power Mac architecture only to companies that could bring in benefits Apple couldn't manage itself — in other words, companies with certain technical expertise or distribution channels in territories where Apple was severely under-represented. The first Mac clones, made by Power Computing, should be available in the spring, and Bandai's multimedia/game console should be on the shelves by Christmas (see panel). But, that narrow focus has now been expanded.



traces of the legend of the spirited little Silicon Valley startup going head to head with the



So far, Apple has released three basic PowerPC models: the 6100/60 (AV multimedia version shown) (top left), the 7100/66 (bottom right), and the 8100/80. Non-Apple machines will soon be flaunting the new Mac OS logo (middle), which will replace the traditional "happy Mac" startup symbol

In November 1994, the members of the PowerPC group took the next step and revealed details of an agreement to develop a common hardware platform. This had been tried before in 1993 when IBM announced its PowerPC Reference Platform (PReP), which Apple had refused to endorse, but this time all conditions were met. So Apple pledged to open licensing of its OS, including ROM code, to companies producing for the platform.

The common hardware reference platform promises to be truly revolutionary in roughly the same way the Mac was when it was launched. Possibly even more so, because it effectively removes most of the incompatibility problems that have consistently plagued the computer industry. As well as Apple adapting the next Mac OS (codenamed *Copland*) to the platform, IBM is adapting AIX and OS/2, Motorola is working on Windows NT, Sun Microsystems will port its SPARC program Solaris and Novell its network operating system *Processor Independent NetWare*. And Windows 95 should work too, due to Microsoft's insistence on NT compatibility. The "vast majority" of Power Mac applications should also run unmodified, while Apple will include full 680x0 emulation in its operating system. Simply choose your desired application, purchase the relevant operating system, reboot, and you're on.

The spec is still unfinished but should be finalized in the spring, with developers receiving prototypes in the fall. Full technical details are therefore not available, but some aspects of the platform are known. First, its core will be a Peripheral Component Interconnect Bus (and Apple's transitional next generation Power Macs will replace the currently used NuBus with a PCI Bus, leading to a five- to six-fold speed acceleration). It will have SCSI, both the Apple Desktop Bus, PC-style keyboard and mouse connections, and low-level hardware registers that both companies' systems require. Startup and configuration will be handled by OS-neutral code named *Open Firmware*. And it will make provisions for both Mac ROMs and IBM ROM BIOS.

**Apple's plans** don't stop there, though. The company is still pushing eWorld, its attempt to bring a GUI as user-friendly as the Mac's to online services. Based on the metaphor of a town square, it has been dismissed by many as far too cutesy (although the Mac's GUI was similarly regarded in some quarters), while

## Power Player

One of the more interesting components of Apple's strategy of expanded markets is its licensing of the Pippin multimedia platform to Bandai. No one is actually going around calling it a game console yet (the official line is that it's a multimedia player), but it's fair to say that it certainly can fulfill that role.

The Power Player, as it will be called when it is launched, will run a subset or runtime version of the Mac OS. Apple is stating that the present Apple CD-ROM catalogue will run with minor modifications while disks produced specifically for Pippin should run on Macs without alteration.

At the system's heart will be the 64bit PowerPC 603 RISC chip, clocked at 66MHz.



Left: imagine Mac's Copy

the draconian moderation has incensed the anticensorship components of the online community. Nevertheless, it has managed to garner 50,000 paying accounts in its first six months of launch and a recent halving of charges will most likely lead to even further expansion. Version 1.1 should be released soon, with Internet support and more multimedia capabilities.

Much of Apple's future, though, with the company's survival now seemingly assured, lies with its forthcoming operating systems, *Copland* and *Gershwin*. *Copland* (which will either be named *System 8.0* or *Mac OS 1.0*) was originally scheduled for release in late 1995, although the current rumor is that it has slipped back to early 1996. *Copland* will have far more native code for the 601, 603, and 604 PowerPC processors, as well as an enhanced 680x0 emulator. Information about the actual specs changes with frustrating frequency, but it's probable that it will feature active assistants, pre-emptive multitasking and protected memory, plus 64bit addressing, which will allow Macs to access disks containing up to 256 Terabytes of data.

After that will come *Gershwin*, details of which are shrouded in even more secrecy. On the agenda, as far as can be

It will have a quad-speed drive, 6MB of RAM, and 16bit video with VGA, providing a resolution of 640x400 and up to 16.7 million colors. It will also incorporate a composite S-Video output, 16bit dual-stereo CDDA, 16bit digital sampling input and full network support. The retail price is expected to be about \$500.

An early prototype model, with keyboard and mouse attached, was on show at Milia '95 in Cannes. Current estimates forecast it shipping before the winter holiday this year.

made out, is system-level support for 3D graphics, pro-active, intelligent agents that actually anticipate user needs, improved speech recognition, online navigation, and support for multiprocessor machines.

What both will certainly have — and what Apple will emphasize in the face of competition from Windows 95 — is the new *OpenDoc* software, which Apple claims fundamentally alters the meaning of the term document. It certainly changes the nature of it, leading to the creation of compound documents made up of a

collection of parts. A user can call up the functionality of a spreadsheet, word processor, or graphics program within a document without having to handle

multiple applications. The parts are manipulated by part handlers (*OpenDoc*'s equivalent of applications) which are responsible for the display, editing, and storage management of the part.

Whether it will be the transformation that Apple claims is open to question, but it will certainly shake things up a bit and continues the company's long tradition of

developing intuitive human interfaces. It's a touch ironic, though, that one of the partners involved in creating the system (in addition to Novell, IBM, Adobe and Lotus) is Xerox.



**The common hardware platform promises to be truly revolutionary in the same way the Macintosh was**



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Daytona USA **Saturn** Prisoner of Ice **PC** Panzer Dragoon **Saturn** Kingdom **PC** Jumping Flash **PlayStation**  
 Secret of Evermore **SNES** MechLords **PC** Cyber Commando **Arcade** Chrono Trigger **Super Famicom**

# alphas

First looks at the next generation of software titles

**T**he latest information is available on this month's works in progress. Further arcade development in the form of Namco's *Cyber Commando* may foreshadow next year's PlayStation releases, while SCE shows off the power of the PlayStation's very odd *Jumping Flash*. And there are insightful looks at the latest details on Saturn and PC projects in development. For the full review of this month's releases, you'll want to check out *NEXT Generation*'s finals section, starting on page 88.

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Despite early rumors of insufficient power, Sega gears up for its Saturn release

## 64 Prisoner of Ice **PC**

Monsters, Nazis, and places unknown appear in this all-new horror adventure

## 68 Panzer Dragoon **SATURN**

The fantasy world collides with arcade action in this graphic-intensive shooter

## 72 Kingdom **PC**

The laserdisk look of *Dragon's Lair* returns in a new adventure for PC owners

## 74 Jumping Flash **PLAYSTATION**

This fast, polygon-based action game shows off the PlayStation's power

## 76 Secret of Evermore **SNES**

Square Soft's first US development finally nears its completion for the SNES

## 80 MechLords **PC**

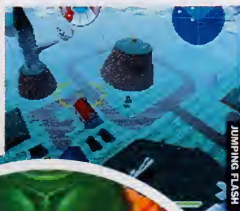
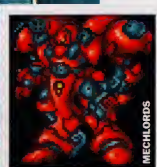
The design team of *Master of Orion* puts a new spin on mechanized warfare

## 82 Cyber Commando **ARCADE**

Futuristic tank combat gets a new look in the sequel to Namco's *Cyberiad*

## 84 Chrono Trigger **SUPER FAMICOM**

The RPG masters at Square Soft take on time itself in their newest project





Daytona USA, the coin-op, currently represents the state of the art in computer game graphics. Now Saturn manages to recreate the feel of its arcade parent will be indicative of its future success



# Daytona USA

Format:	Saturn
Publisher:	Sega
Developer:	AM2
Release Date:	Spring '95 (Japan)
Origin:	Japan



Saturn's *Daytona* runs in the console's standard 320x224 mode. The frame rate is expected to remain at 30fps

After its arch-rival Namco's successful conversion of *Ridge Racer* for the PlayStation, Sega has a lot to prove with the Saturn version of *Daytona USA*

**T**he battle between Sega and Namco for domination of the racing game market is set to move from the arcades into the home with the Japanese release of Saturn *Daytona USA* in the spring.

The team behind the project, Sega's AM2, was also responsible for the *Daytona* coin-op as well as other Sega arcade classics like *Out Run*, *Virtua Fighter* and, more recently, the dazzling *Virtua Fighter 2*. For this conversion, AM2 was split to create a group dedicated solely to Saturn development, which was, in turn, divided into two teams charged with converting *Daytona USA*, and *Virtua Fighter 2*, respectively. However, such is Sega's urgency to release *Daytona* that *Virtua Fighter 2*



*Daytona USA* is now 45% complete. Most of the graphics and background scenery from the first track are included

## ng alphas



Nobody doubts AM2's skills, but many are already wondering if the Saturn's twin SH-2s will be enough to handle graphics as complex as *Daytona USA*'s

**Due to technical limitations, AM2 has been forced to produce the Saturn version using the machine's lower screen resolution of 320x224**

programmers have been drafted in to help keep it right on schedule.

In early February, the game was about 45% complete. AM2 has now incorporated working gauges, including a track position indicator, lap timer, and full tachometer, and game mechanics such as the multiple view option are also in place. The most obvious changes from the coin-op version are a tweaked layout for the game screen, as well as some new graphics to make the background scenes more recognizable.

Thus far, only the beginner course has made it into the home version — AM2's priority was to get the graphics engine up and running before plowing on with the translation of the intermediate and advanced courses. However, work is now set to begin on the more complex



Multiple views (above and above right) have now been added to the game



Surprisingly, even coin-op details like the spinning fruit machine barrel remains intact in the Saturn version

scenery of the advanced and intermediate tracks.

Due to technical limitations, AM2 has been forced to produce the Saturn version using the machine's lower-screen resolution of 320x224. The coin-op's crystal-clear display has a resolution of 496x384, but the sheer amount of polygon shifting, in addition to the extra burden of texture mapping, necessitated the switch to a lower level of detail for the Saturn. The inevitable result is that the track will tend to look rather jagged, the cars will appear chunky, and finer details, such as cloud reflections on car windows, will look blockier.

It's likely that creating a 3D title of this size will present a number of technical problems for the Saturn's sequential 32bit processing architecture and lack of a dedicated geometry engine. In terms of raw specs at least,



The arcade version of *Daytona USA* features four different viewpoints, ranging from in-car to wide-angle (shots are shown clockwise from top left)



The coin-op's crisp 496x384 display will be missing from the Saturn version. Some of the game's subtler qualities (micro texture, reflections, etc) will also be absent

it's difficult to see just how Sega's machine will be able to match the level of graphic excellence seen in PlayStation's *Ridge Racer*.

AM2's goal is a healthy frame rate of 30fps. At this stage, each car is constructed from around 160 polygons, with another 2,000 polygons dedicated to the rest of the game's environment. AM2 maintains that some advance clipping techniques will prevent the glitching that marred *Virtua Fighter's* visuals, but the game is still a long way from matching the coin-op's graphics.

In the arcade, *Daytona*'s dedicated graphic processors generate an amazing 5,000 polygons per frame, every 1/60th of a second. Like the PlayStation, the Model 2 architecture has a custom 3D

matrix (geometry engine) for calculating polygons, but it also uses customized algorithms built into the board to enable it to generate such effects as the reflections of the sky in the cars' windows.

But there is hope for those dubious about the 3D performance of Sega's hardware. While the Saturn has yet to prove itself in this area, the calculating power of the CPUs themselves (the SH-2 is one of the fastest chips when it comes to performing the floating-point calculations necessary for 3D graphics) could yield some surprising results. With a concerted effort to develop efficient, low-level 3D code (the programmers are using assembler for core routines), AM2

should be able to maximize CPU throughput and work around any hardware limitations. *Panzer Dragoon* goes some way toward showing that the machine has considerable potential when its power is tapped in the right way. Whether the extra processing that *Daytona* demands will prove too much will become clear in a few months.

Despite the lack of finesse in the visuals (remember, *Ridge Racer* didn't look that special until it arrived), *Daytona* seems like a generally convincing conversion of the coin-op. There's little doubt that AM2 will deliver the coin-op's playability — a factor just as important as its graphics in making it one of the most successful coin-ops of all time.

**AM2 maintains that some advanced clipping techniques will prevent the glitching that marred *Virtua Fighter's* visuals**



Graphics aside, one thing that will give *Daytona* a massive lead over *Ridge Racer* is its multiplayer option. A seven-player adapter (above) will be released around the same time as the game, but will it be supported? A Sega steering column (top) should also be available around launch





## ng alphas



## Tech Specs

Daytona USA pushes Saturn (as understood today) to the limit. Here's what's under the hood:

**CPU**  
2 x SH-2 32bit @ 28Mhz

**MEMORY**

- VRAM: 12Mbits
- Main RAM: 16Mbits
- Sound RAM: 512K
- Buffer RAM: 512K
- Boot ROM: 512K
- Battery RAM: 32K

**GRAPHICS**

- Resolution: 352 x 224 (or 640 x 224)
- Colors: 24bit palette, 32,000 onscreen
- Sprites/polygons: VDP1 chip, dual-frame buffer
- Backgrounds: VDP2 chip, 5 planes, 2 rotation planes

**CD-ROM DRIVE**

- Double speed



These shots are from a slightly earlier version of the game (40% complete), but they include a wide variety of cars and some impressive detail



So far, AM2 has concentrated on translating the graphics from the oval beginner track, but the team has already begun converting some of the graphics from the advanced tracks as well (top). Expect some serious progress to be made over the next few months

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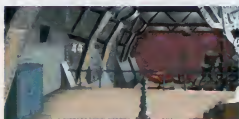
Similar in look and feel to Infograms' first *Call of Cthulu* title — *Shadow of the Comet* — *Prisoner of Ice* emphasizes a strong story line and an atmosphere of suspense over any other aspect of game design

# Prisoner of Ice

Format:	PC CD-ROM
Publisher:	I•Motion
Developer:	Infograms
Release Date:	June
Origin:	France



The engine room of the British sub (top). The interior of the sub hides many items useful to your guest (center). Detailed backgrounds give life to the mazelike craft (below)



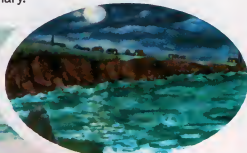
Early in the game, this World War II submarine will essentially be the only haven the you have from the harsh, Antarctic weather. And don't think that intimidating deck gun will be enough to stop what lurks beneath the ice

Infograms' newest venture, based on an H.P. Lovecraft story, takes players beyond *Alone in the Dark*, into the arctic wastes

**B**uilding on the success the team achieved with its unparalleled *Alone in the Dark* series, French developers

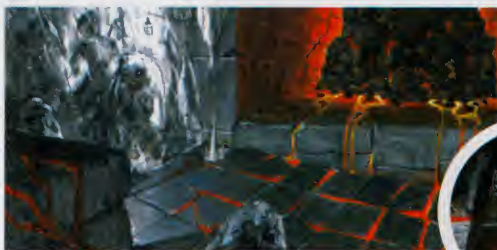
Infograms has begun the development of a new game world based on the twisted writings of horror master H.P. Lovecraft.

Similar in look and feel to its first *Call of Cthulu* title — *Shadow of the Comet* — *Prisoner of Ice* emphasizes a strong story line and an atmosphere of suspense over any other aspect of game design. The result is an ordinary-looking graphic adventure that, in the final analysis, is anything but ordinary.



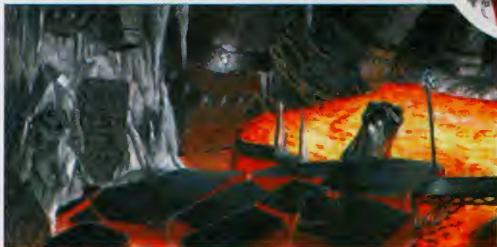
This sleepy seaside town holds a dark secret. Sometimes it's best to leave hidden things alone (above)





Strange altars for strange gods litter the frozen, subterranean passages (inset)

Inside the dark caverns of ice, the frozen remains of an alien race await their fate (top right). While exploring your grim surroundings, it's important to grab as many clues as possible (right). The library holds texts riddled with unspeakable knowledge (below)



An overhead view of the same room reveals some of its grandeur (right)



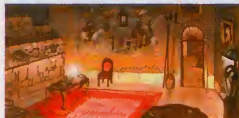
Your travels will take you into more pleasant surroundings than the icy wastes but this doesn't necessarily make you any safer. This Greek courtyard should calm your nerves

*Prisoner of Ice* is loosely based on H.P. Lovecraft's classic story, *The Mountains of Madness*, and the lonely, eerie feel of that piece can be found in every aspect of the game's plotline and wonderfully subtle artistry.

The story begins in 1937 with the famous explorer Peter Hamsun and his son, Björn. The two are trapped in a secret Nazi military base and receive aid by O'Leary, a commando in the Royal Navy (kind of like James Bond, but a lot less charming). The trio escape on a German dog sled loaded with crates bearing "Streng Geheim" (Top Secret) labels. Fleeing across rugged, frozen terrain, the team accidentally knocks off one of the crates and lets loose its contents. In an attempt to recover the lost item, O'Leary is grabbed by a tentacled creature that's escaped from the broken crate. The beast immediately disappears through a



Peaceful, classic structures perfectly house the kind of deception and horror depicted in H.P. Lovecraft's bizarre, well-written stories



The interior of many rooms reflects the 1930s setting. All of the structures in the game are finely detailed to deliver as realistic a feel as possible

## ng alphas



The local British headquarters may have a difficult time believing all of the ins and outs of your story (left)



This storeroom has seen better days but still may have a few useful items lying around (above)



Contact the natives to learn the enigma of this very odd little village (above)



A collection of backgrounds and scenes (pictured above) are shown here. Note the careful placement of furniture and various personal items, like coffee cups, to achieve the optimum realistic effect possible

huge star-shaped hole in the ice, taking his hapless victim along with him.

Fascinated by the bizarre occurrence, and in an attempt to rescue his comrade, Hamsun approaches the hole only to be captured by the same horrifying creature. Björn flees the scene, and is rescued several hours later by the submarine *H.M.S. Victoria*. As an American observer, Ryan, on board

the British sub, you set out to uncover the mystery of the tentacled monster, and, if possible, to recover the two missing men. From here, your journey will take you into the Antarctic ice flows, the Falkland Islands, Buenos Aires, Tihuanaco, and eventually into the mysterious evil that is Innsmouth, New England. The story mirrors actual events when possible, and is based, in part, on the actions of the Ahnenerbe, a Nazi organization created during 1935 in order to study the occult.

The rest of the game will mirror *Shadow of the Comet* in many ways, but Infogrames does plan to add a few new features to its latest release. Characters and menus will be controlled by a new mouse-driven interface, and the game's ending will enable players to choose between a happy or a tragic ending. Conversation menus now offer characters a series of choices as well as appropriate responses. On the video side, Infogrames has pulled out all the stops, and the final release will contain 1,500 different animation segments, and 150 different settings along with a 3D opening and intermediary sequences.

While currently planned for release in June of this year, *Prisoner of Ice* is a game title that all horror fans should be watching for.

**The story mirrors actual events when possible, and is based, in part, on the actions of the Ahnenerbe, a Nazi organization created during 1935 in order to study the occult**

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Actual screen shots used

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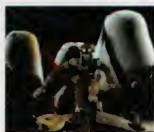
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# Panzer



The first boss launches torpedoes (top).  
A typical wave of early nasties (above)



The five-minute intro sequence sets the tone of the game perfectly. It follows the game's hero as he discovers a dragon, an ancient war machine. He's soon off on the ride of his life

# Dragoon

Sega's new 3D blaster for the Saturn contains neither "panzers" nor "dragoons," but it does offer a sumptuous visual feast for shooter fans

Format: **Saturn**

Publisher: **Sega**

Developer: **Andromeda**

Release Date: **Out now (Japan)**

Origin: **Japan**

active war machines and strange animals known as "living attackers."

War rages across the planet as a ruthless imperial power attempts to take control through the ancients' technology. And now the Empire has learned how to activate mysterious towers and awaken the dragons sleeping inside them.

You play a character called Kaeru Furyuge, a 16-year-old hunter who

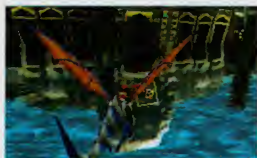
**I**t's clear that from the outset, Sega intended *Panzer Dragoon* to be something distinctly different from the standard Japanese fare of racers, fighters, shooters, and RPGs. Sega Europe has recently been demonstrating the beautiful looking game to selected representatives of the videogame press. Although the convoluted scenario brings to mind cheap swords 'n' sorcery-style paperback novels, it does provide the game with most of its basic structure and so it is worth outlining.

*Panzer Dragoon* is set on a distant planet where humans are in danger of extinction. A thousand years ago civilization was at its peak, but now people now live in small, isolated villages. The ruins of the ancient civilization — the "relics of the ancients" — hold the key to human survival, yet they're guarded by still-



Sega's inhouse developer, Team Andromeda, has incorporated terrific (although not entirely realistic) water effects into the first level

From this strange broth Sega has distilled a spectacular 3D shooter with one of the most spectacular sensations of flight yet seen in a videogame



The grand-looking temple (top) appears toward the end of the first level. Its interior is much less plush (above)

happens to be in a tower at the very moment a dragon awakens. After successfully making contact with the mysterious creature, he sets off around the planet astride the beast with the intention of taking on the Empire.

From this strange broth Sega has distilled a spectacular 3D shooter with one of the most convincing sensations of flight yet seen in a videogame. However, the gameplay is not all it appears from these screen shots: Instead of having complete control of the dragon, you fly through the levels' environment on rails. In effect, you play the dragon's gunman, protecting it from harm by downing the enemies that attack from all sides — it's the dragon that has an energy bar, not your character, Kaeru.

The game feels like a curious hybrid of *Magic Carpet*, *Starfox*, and the Sega shooter, *Space Harrier*. The game's graphics regularly evoke recollections of Bullfrog's finest hour, with fantastical texture-mapped landscapes that



As the game kicks off, your steed banks dramatically away from the camera (top). Alien life-forms come in many strange varieties (above)

undulate beneath you and all manner of strange (and curious) foes both on land, and in your own airspace.

*Panzer Dragoon's* similarity to *Space Harrier* derives from the fact that both games are simple 3D into-the-screen shooters; irrespective of

## ng alphas



The sandy environment of level two is the home to gigantic pincer worms

graphical flair, both are essentially very straightforward to play. Although *Panzer* features a weapon sighting system, near-continuous button bashing is required for significant progress. Your weapon, a futuristic laser-crossbow, can also be powered up, *R-Type* style, and its sight changes to a square, allowing you to unleash a searing blue bolt.



*Panzer* features an onboard scanner in the top-right corner which keeps track of enemies and shows your current view (top and above)

Finally, the level structure is engineered in a similar fashion to Argonaut/Nintendo's renowned joint venture. Your escapade alternates between above-ground sections and subterranean segments comprising tunnels and caves, while each of the five levels rounded off with a boss character. The fact that everything is on rails at least allows for effective set pieces and ensures that the Saturn maintains a brisk speed while hammering out an optimum number of onscreen details.

*Panzer Dragoon* takes Sega's multiple gameview principle to new heights, allowing you to survey your surroundings through 360° from the back of your mount. The shoulder buttons of the Saturn game pad twist the view through the four points of the compass, while the A, B, and C controls dictate the distance from which the





*Panzer's* artists have drawn upon many influences to create the game's unique adversaries (top, left, and right). Things are getting hairy (above). The forest level (level five) features trees of varying heights (inset right)

action is viewed: in-character, close, or far. And the views aren't cosmetic touches — they're a fully fundamental part of the gameplay. Unless you use every viewpoint at your disposal — which takes some time to get the hang of — you're likely to spiral earthward with alarming frequency.

There's very little doubt that *Panzer Dragoon* is an inventive game — and future Saturn developers will be hard pushed to match its overall design and look, let alone its technical achievements — but there is a danger that the game will end up subscribing to the same unfortunate values as *Clockwork Knight* (NG 4). It is unlikely that Sega will fall into that ease-of-completion trap again, but the company could face some problems disguising the underlying shallowness of *Panzer Dragoon's* gameplay.



As in all confrontations with larger enemies, the game forces you to attack it from all angles — regular viewpoint flipping is required

ng **alphas**

# Kingdom: The Far Reaches

Interplay takes pieces of the arcade classic, *Dragon's Lair*, and attempts to put a new spin on the interactive movie

**The entire game is a delivery of crisp animation that rivals any movie or television show, with full character development and fantastic special effects**

Format: **PC CD-ROM**  
 Publisher: **Interplay**  
 Developer: **Interplay**  
 Release Date: **June**  
 Origin: **US**

**D**espite all of the recent criticism thrown at the interactive movie genre, the simple fact remains that the appeal of this new

sphere of gaming is drawing customers to PC titles in hordes previously unheard of. Coming off the success of its *Cyberia* project, Interplay decided to use this near controversial format for the complex fantasy tale of *Kingdom: The Far Reaches*.

The story starts in the kingdom of Alkatesh when Mobus, one of two sorcerous brothers, is chosen to wield the Hand, an amulet of great power enabling its user to rule the entire kingdom. Furious at being snubbed, Torlok, the other brother, makes a pact

with the forces of darkness, losing what little humanity he possessed in the process. Torlok, now a power-mad fiend, along with his minions, easily conquers the citadel of Alkatesh which is completely unaware of any threat.

The story unfolds in a manner reminiscent of gothic stories from the Dark Ages: In an attempt to keep Torlok from achieving ultimate power, Mobus manages to break the Hand into five pieces, and has his lieutenant, Arne, hide them across the land. Centuries later, Torlok is still bringing war and strife to the kingdoms of the land, using evil magic to keep himself alive. You are Daelon, the last descendant of the original kings, and the last student of magic in the land; your quest is to rid the world of Torlok and to set right the evils he has let loose upon the land.

The game's resemblance to earlier Don Bluth titles like *Dragon's Lair* and *Space Ace* is no accident. Members of the original development teams for those games are on the Virtual Image Productions staff, their influence apparent after watching only a few



The opening sequences show Daelon recollecting his magic powers and learning of the quest that lies before him



This castle is only reachable with the fairy's help, and after its appearance it shows up on your map (above). And, of course, be aware of the deadly crystal tigers

A few spots give Daelon extra health. The kingdom's varied lifeforms require different tactics and diplomacies (right)



Running across the evil magician who wanders the forest can result in the loss of another life (left)



The game deaths are fun to watch but can get fairly annoying after several plays. A magical swirl of water swallows your main man (above)



Certain areas must be avoided and others may be passed only with a specific item

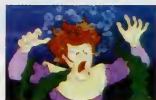
minutes of the game. The entire game is a delivery of crisp animation that rivals any movie or television show, with full character development and fantastic special effects. In its final form, the game is to contain more than 400 megabytes of animation, rendered in FMV format. To flesh out the characters to an even fuller extent, full voice acting has been added, giving the title a finish that is all Hollywood. But even with all of the flash, that pesky, unflinching question remains: how well does it play?

The problem with the original *Dragon's Lair* title, and in fact, with most interactive movies, is that the only real way to win is by watching your character die in a given situation, and then going back and choosing a different path the next time around. This delivers all the entertainment appeal of walking out of a room blindfolded, bumping into numerous walls, backing up, and trying it again. In order to avoid this dilemma,

*Kingdom* has instituted a nonlinear game design allowing players to choose where and when they wish to approach different events. This open-ended approach keeps play from becoming stale, and enables players to save a problem until later, instead of becoming stuck in one place.

The title also includes hidden features and several elements that change with every play. This not only ensures enormous replay value, but these features also give the player the opportunity to look for something besides their current goals — a necessary break for those frustrated with their present situation. Variations allow the flexibility of personal choice; the game includes more than 30 magic spells and items available during its course. And though the interface is invisible, most gamers will have all the nuances figured out within minutes.

There's no doubt that *Kingdom: The Far Reaches* is one of the most impressive looking animation adventures ever orchestrated. However, only time will tell whether or not the designers have managed to avoid the tremendous lack of playability synonymous with the term "interactive movie." Judging from what NEXT Generation has seen so far, this title has a better chance than many others we've seen.



Examining some areas too closely can result in immediate results. Better luck next time



Help everyone you can. By befriending the fairy, you gain access to an entirely new area



Many of Daelon's fates can be quite gruesome



ng alphas

# Jumping

# Flash



The overhead perspective provides more accurate landings and gives you a look at your own feet

Jumping Flash's detailed polygons (above, left) take 3D platformers into a new era

In early 1994, one of the first graphic PlayStation demos was a 3D platform game with the working title *Spring Man*. Now launching as *Jumping Flash*, this game could well revitalize a well-worn genre.

*Jumping Flash* looks like an idiosyncratic combination of *Motor Toon Grand Prix* and *Pilotwings*. Taking to the skies as a half-rabbit/half robot creation named Robit, you bounce and run through a smooth aerial maze in search of an evil scientist. The plot may sound like *Sonic's*, but the action is reassuringly different.

An amusement park, a volcano, an ice cavern, and an historical park — all modeled in textured 3D — provide the game's backdrops. These are crammed with fire-spitting insects and various animal enemies which Robit has to fight. He can jump and drop, but it's his ability to turn in mid-air that makes him different; while in flight, he can also change his direction and even look down at the ground.

After the disappointment of *Motor Toon Grand Prix*, *Jumping Flash* could provide SCE with its first home-grown winner.



3D polygons are about to give the humble platform game a new lease of life

Format: **PlayStation**

Publisher: **SCE**

Developer: **SCE**

Release Date: **April (Japan)**

Origin: **Japan**



SCE hopes that *Jumping Flash* will be remembered as the first appearance of a new platform star with the same longevity as *Sonic* or *Mario*

# "THIS is cool"

—Computer Gaming World

**5/5 Rating**

Computer Gaming World—February 1995

**94% Rating, Golden Triad Award Winner**

Computer Game Review—February 1995

**Winner—1994 Best Breakthrough Game**

Electronic Entertainment—March 1995

**Best Software Developer: Bullfrog**

Computer Player—January 1995

**"The graphics are stunning, the sounds are amazing, the play is fast and furious."**

PC Gamer—February 1995

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# Secret of Evermore



Format:	<b>SNES</b>
Publisher:	<b>Square Soft</b>
Developer:	<b>Square Soft</b>
Release Date:	<b>Late May</b>
Size:	<b>24 Mbit</b>
Origin:	<b>US</b>

Can Square Soft's first title — developed entirely in the US — measure up to the standards set by the likes of the Japanese *Final Fantasy* series?



This initial whimsical sketch, shown here in pencil and pen (upper right), transforms into the beautifully 3D-rendered, Alias-modeled space craft (above). In addition to the fantastic final look, the graphics are rendered in a much speedier fashion



**Even the best Japanese-to-English translation will have difficulty capturing the nuances of language, while historical references and cultural in-jokes are often completely lost**

**T**he impact of Square Soft in the US has been much less dramatic than in Japan, where reverence for the *Final Fantasy* series, currently in its sixth installment, approaches a level of cultural hysteria only matched here by the likes of *Mortal Kombat* (although *Final Fantasy III*, the US version of the Japanese *Final*

*Fantasy VI*, was the eighth best-selling game for '94). Aside from the fact that RPGs are simply not as popular in the US as in Japan, Square Soft's US management team felt that perhaps part of the reason was that all development was done on the other side of the Pacific.

As excellent as the games may be, even the best Japanese-to-English translation will have difficulty capturing





**Evermore uses a Ring Menu system similar to *Secret of Mana's* (top). Much of the title's humor refers to Hollywood films, most of which are made up, yet familiar (middle). The designers sided away from static combat screens in favor of a more action-oriented approach (above)**

the nuances of language, while historical references and cultural in-jokes are often completely lost. And for a genre which depends so heavily on dialogue and story line (all told, *Final Fantasy III* had more than 300 pages of text), this can seriously detract from a player's overall enjoyment of the game; and, as a consequence, Square Soft has opted to start its own US development team. The newest result is the upcoming title, *Secret of Evermore*.

The story develops somewhat like this: Sometime in the 1950s, a group of scientists, headed by one Dr. Sidney Ruffleberg, invented a device which allowed them to create Evermore, a fantasy world of their own design that



**The so-called "Pipe Boss," rendered first on an SGI workstation using *Alias* (above), is then shown (inset) in its final form as it appears in the game. By initially rendering the model, the designs can quickly be turned into game graphics for the SNES**

could actually transport them there. Now in the '90s, a boy and his dog have stumbled across the curious invention in the basement of the Doctor's old, decaying mansion, and accidentally trigger it. Whisked away to another dimension, they find that Evermore is no longer the peaceful place it was meant to be, and it's a long, long way back home.

Doug Smith, creator of *Lode Runner*, is heading Square Soft's newly formed Stateside development team, and Alan Weiss, formerly of Broderbund, is *Evermore's* producer. While even the most cursory glance at the game's graphics and even title shows the heavy influence of Square's other major US release, *The Secret of Mana*, Evermore is being designed from scratch, and the team is quick to boast that there's not a line of unoriginal code in any of the game's 24 Mbits.

The process of design and coding is being handled using *Sage*, Square's in-house set of development tools, authored by Smith and his programming staff. The goal of *Sage* was to put game design in the hands of artists, animators, and writers who might not have had any programming or, for that



**Conceptual art by Daniel Decu portrays the variety and creativity of Evermore's denizens**

## ng alphas



The "Bug Boss," shown as a sketch (inset), compares dramatically with the actual and final product (above). This is yet another example of Alias-aided modeling

matter, even computer experience. This would enable Square to concentrate on building a team with as much talent and creativity as possible, and worry as little as possible about the technical end. The program combines tile editing, animation control, and event scripting into one package, then makes them accessible with a simple point-and-click

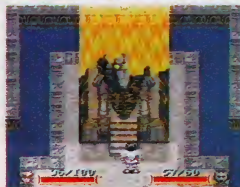
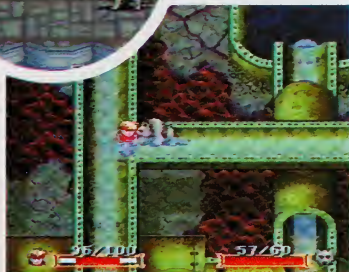
interface. Using proprietary hardware, the design computers can then be plugged directly into a standard SNES deck so the results can be instantly assessed and play-tested.

Evermore also relies heavily on SGI rendered, Alias-modeled graphics. Originally undertaken as an artistic decision, its main advantage has turned out to be the speed with which designs can be turned into usable game graphics. Lead conceptual artist Daniel Doclu is a former toy designer for Ace Novelties, and his ability to design in three dimensions has been an obvious asset, as can be seen in *Evermore*.

The game's setting was conceived for maximum story flexibility. *Evermore* is made up of the fantasies of a number of different characters, which allows for great variety in both look and story line. Anything can happen. The original concept was to make the hero something of a bookworm, and bases sections of the game on works of literature. However, in keeping with the developers' charter to produce a game with a distinctly American flavor, they quickly switched to making the hero a B-movie addict and basing much of the dialogue and humor on Hollywood made films. *Evermore* now has four distinct areas: a prehistoric land, a medieval land, a land based on ancient Greece, and a futuristic city that's a conscious take on the 1920s film, *Metropolis*.

Rather than use combat screens as in the *Final Fantasy* series, *Evermore* is

**Evermore also relies heavily on SGI rendered, Alias-modeled graphics. Its main advantage has turned out to be the speed with which designs can be turned into usable game graphics**



Overlapping sound loops enable this marketplace to hum with activity (top). And of course, *Evermore* has its share of vast mazes and mystical events (middle and right)

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The story centers around a boy and his dog — what can be more American? (top and middle) Unlike its cousin *Secret of Mana*, the multiplayer format was abandoned early in *Evermore* (above)

an action/RPG hybrid, following the *Zelda* games and *Secret of Mana*, so its boy hero carries a sword and the player will have to learn how to use it. His dog companion can also be controlled and can change shape as the pair move from world to world, although only the buff "Proto Dog" of the prehistoric land was on view at press time. Instead of magic points and spells which mysteriously appear with each new experience level, there's a slightly new and very interesting approach to magic: Utilizing alchemical combinations of elements that the player has to track down and find, he or she then gets someone to describe how they're used.

Square Soft has a reputation for consistent quality that's unmatched in the home market. While *Secret of Evermore* is clearly not breaking much new ground, even at roughly fifty per cent completion, it's equally clear that this RPG giant is committed to continuing that tradition, and this title marks an auspicious debut for its US development house.



## PlayStation



Dark Stalker  
Touken

Street Fighter: The Movie

Boxer's Road  
Metal Jacket  
Rayman

Tuh Shin Den  
Phirosoma

## SEGA SATURN

X-Men Arcade  
Virtua Fighter  
Parasite Dragon

Van Battle  
Daytona USA  
Street Fighter: The Movie



Wing Commander III  
Super SF2 Turbo  
Gex  
Savior Moon

Samurai Shodown  
11th Hour  
Yu Yu Hakuso  
Policenauts



Samurai Shodown 2  
Viewpoint  
King of Fighters '94  
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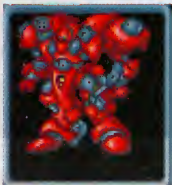
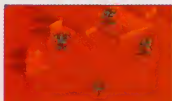
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# MechLords:

## The Inner Circle

Multiplayer options and malleable configs keep *MechLords* flexible (right). Hukling mechs tower over the local landscape as they fight for more resources (below). While the heavy mechs are bigger and better armed, the light bots have a speed advantage (inset)



Terrain plays an important role in land fighting tactics (top). When several enemies appear at once, it can be very difficult to keep track of who's whom (middle). A close up of one of your more efficient fighting machines (left)

*MechLords* is the working title and combo effort from New World Computing and Simtex, two companies looking to add a strategy title to the banks of futuristic battlers

Format: **PC CD-ROM**

Publisher: **New World Computing**

Developer: **Simtex**

Release Date: **June**

Origin: **US**

**T**here have been a score of games released in the past year that are set in *BattleTech*/*RoboTech* game worlds where players are strapped in behind the controls of multiton mechs and sent out to battle evil — the “evil” being just about anyone else around.

Recently though, the most successful titles in this futuristic, gothic world have, for the most part, been simulators. These sims can enable players to take the controls of these immense machines and personally lead them into battle in simulator-style shooting games. Now, the development team at Simtex (remember *Master of Magic*?) has jumped in to the mech sim arena looking to create a strategy title that fleshes out the dark world of both combat and mechanics, and that gives players a taste of what it's like to rule one of the mighty clan houses.

Starting as a young lord in one of six royal houses, players will try to make a name for themselves with the ultimate

**You'll also be forced to deal with the mysterious Snee, an alien race which has begun a massive invasion of the empire's territory**



Colonizing gives your clan more power and resources



Close-ups detail the personalities of your leaders (and rivals) within the clan (above)

goal of becoming head of the house. In the beginning levels of the game you and three other lords from your house will be sent out into the frontier to colonize new worlds and expand the influence of your house. As the game continues on, you'll find yourself plotting the downfall of not only other houses, but also the rivals within your own. As if all of this weren't enough to keep track of, you will also be forced to deal with the mysterious Sneer, an alien race which has commenced on a massive invasion of the empire's territory.

Play requires a multitude of different skills, as the title embraces aspects of many different strategy games including diplomacy, world building/resource management, spying, research, and of course, tactical ability. As players begin to build more colonies and achieve access to more resources,



Profile screens detail the trustworthiness of your companions (top). Choose your clan carefully, each one has its own strengths and weaknesses (above)

they can begin the construction of bigger and better research facilities which will, in turn, give them the ability to design their own mechs, or modify existing designs with upgraded weapon and guidance systems. Of course, players will also be required to keep an eye on how all resources are allocated, whom to fight, and whom to side with, and most important of all, where to deploy the mechs and tanks making up the backbone of this futuristic assault forces.

Other features include an interesting 3/4 view of the strange worlds around the galaxy, an impressive soundtrack, and some choice sound effects. Plans are currently including multiplayer options for modem and direct-link, as well as a full network option that will enable as many as four players to compete against each other. While this is definitely not a game that will offer much to the arcade fan, it looks like it could be one of the biggest strategy releases of the year.



Your commanders appear every now and then to deliver mission objectives and (occasionally) helpful advice (above)

ng alphas

# Cyber Commando

It's just possible that *Cyber Commando* could achieve the arcade success that eluded its predecessor, *Cybersled*



Namco has given every sled a new lick of paint, and the result is impressive

**E**ven though Namco's *Cybersled* boasted pin-sharp System 21 graphics, and carefully reworked *Battlezone* gameplay, it gained a relatively slim, almost cult following in the United States. It certainly turned heads wherever it appeared, but those heads didn't stay turned for long: despite an addictive two-player mode, the game concept was too restricted in scope to assure it mainstream success.

After successes like *Starblade* and *Galaxian3*, Namco will no doubt be banking on the game's sequel, *Cyber Commando*, to generate a healthier level

Format:	<b>Arcade</b>
Manufacturer:	<b>Namco</b>
Developer:	<b>Namco</b>
Release Date:	<b>TBA</b>
Origin:	<b>Japan</b>

of interest in this desirable interpretation of the 3D shooter.

The game's appearance alone will give it a head start. Combat takes place in sinister arenas with Gouraud-shaded, texture-mapped walls and obstacles, which makes for a hugely more atmospheric environment than the garish play areas of the original. And, like the PlayStation update of *Cybersled*, *Cyber Commando* features fully texture-mapped vehicles, thanks to the System 22 board at its core.

Apart from that, the vehicles in *Cyber Commando* are similar to the original *Cybersled* lineup, though their strengths and weaknesses were altered in a bid to distinguish the game from its predecessor. Six craft are selectable at startup, each offering different features in three areas: weapon strength, vehicle speed, and shield strength.

**Namco has faithfully reproduced the silken driving feel of *Cybersled*, which will come as a welcome relief to fans of that game**



Although *Cyber Commando* shifts a similar amount of polygons to *Cybersled*, the texture mapping makes a significant difference





With the enemy almost in your sights, it's time to let fly a friendly missile (above)



Portions of your battle are replayed from various angles (above). firepower has been aesthetically updated (right)

Namco has dispensed with the concept of selectable combat arenas, instead restricting the number of environments to three, to be tackled consecutively. The first, East City, is fairly small, with lots of objects to hide behind. Civic Park is more spacious, enabling more head-on action. The last, Central Factory, is reserved for a showdown with the boss.

*Cyber Commando's* gameplay is very similar to *Cybersled's*. Namco has faithfully reproduced the silky driving feel of the original, which will come as a relief to fans of that game. However, the fact that the weapons and combat system also remain largely unaltered will be regarded by many as a fault. An extra type of weapon or perhaps multilevel arenas could have enhanced the nearly two-year-old format.



*Cybersled's* cat-and-mouse gameplay has been transferred directly to *Cyber Commando* (left). Each of the six vehicles has its own pros and cons (right): the Voodoo, for example, is quick but has inferior weaponry



The level of difficulty leaves something to be desired, too. The version NEXT Generation played would have provided little challenge to *Cybersled* veterans, and even virgins to the territory should be able to reach the boss with few continues.

But despite these similarities and minor complaints, Namco has worked several new features into the mix. In addition to general replenishment icons, there are now radar jamming devices which interfere with your own onboard scanner which force you to plod along with the main perspective only; and there are shot attractors which literally draw your fire away from targets.

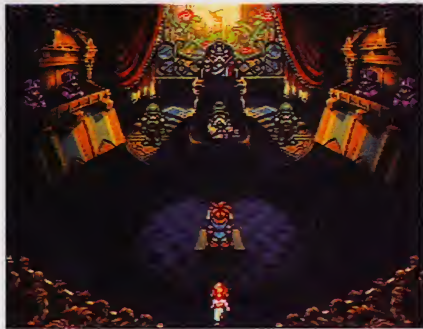
Namco will surely be counting on *Cyber Commando's* optional linkup facility to make it a long-term money-maker. And with visuals like these — in design terms, *Cyber Commando* is way ahead of fellow System 22 title *Ace Driver* — the game should certainly grab people's attention.

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ng alphas

# Chrono Trigger



Facing the Inquisition (top). Heroes stop for a breather (middle). The action often switches to a side view (above)

The huge Japanese market for SFC RPGs shows no sign yet of being dented by the advent of the next generation

Format: **SFC**

Publisher: **Square Soft**

Developer: **Square Soft**

Release Date: **Mar 11 (Japan)**

Origin: **Japan**

**I**n late 1994, Square Soft's cartridge sales hit the 10 million mark — a figure that most console publishers can only dream of. And it reached this landmark by repeatedly delivering just one type of game: RPGs.

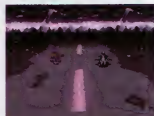
After its *Final Fantasy* and *Seiken Densetsu* series (known to Western gamers as *The Secret Of Mana*) comes *Chrono Trigger*, two years' of work by a team of designers who've attained near-legendary status in their native land.

Chief designer Horii Yuuji could justifiably claim to know console RPGs better than anyone, having been behind *Dragon Quest* parts 1-6 — Japan's most popular examples of the art to date. He is flanked by Akira Toriyama, probably the most praised comic book artist working in Japan today, and responsible for the successful *Dragon Ball Z* animated series; and Ironobu Sakaguchi, Square Soft vice president and director of the *Final Fantasy* series.

The combined talents of this trio are being lavished on a 32Mbit game based on the adventures of a reluctant time traveler — the "Chrono" of the title — and his five companions. Their task is to travel between six time zones, righting wrongs to reshape history, or even making history by going forward in time.

*Chrono Trigger* is currently the most eagerly awaited game in Japan. It's easy to see why it has generated such interest: its luscious graphics and the undisputed abilities of its creators are the perfect recipe for another first-class Square game.

ng



Tin-plated Robo lets fly (top). The almost obligatory Mode 7 section (mid). One of six time zones (above)

Your team tore it up for 82 games. You broke  
all the records. You saved all your stats. But  
you're not done yet. The playoffs are  
calling. Time to separate the pretenders  
from the contenders.

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ASSISTS	1
STEALS	2



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about stats. There's eye-popping 5-on-5 action. Alley  
oops. Behind-the-back-passes. Picks. And if coaching is  
your bag, enough set plays to wear out your clipboard.

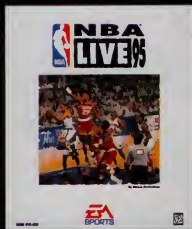


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some other big names like Pippen, Starks or Kidd?



We rated the players in 15 categories like field goals, assists and rebounds. Of course, stats can't begin to describe the thrill of a game-winning, two-guys-hangin'-all-over-ya, nothin'-but-net-trey.



We took the usual stats and did something extreme. Actually added basketball. Now you control fast breaks, slams, blocks. You crash the boards or ride the pine from either of two views. Full court and close up. It's the NBA. On your PC. Get ready to sky. **NBA**

**NBA  
LIVE  
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Raiden PlayStation Immercenary 3DO Burn Out Jaguar Tempo 32X King of Fighters Neo-Geo Descent PC  
 Earthworm Jim: Special Ed. Sega CD Coach K College Basketball Genesis Kirby's Dream Course SNES



## The month's review guide to the latest in videogaming

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91	PC
95	Macintosh
95	Sega CD
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102	CD-i
102	Arcade

**O**nce again, **NEXT** Generation brings you our comprehensive list of this month's biggest titles. Now that the final versions are out, PC fans will want to compare the entries into the "Doom-killers" competition, and console fans will find all the info on the latest carts to US (and Japanese) shores. Here's a list of guidelines to help you sort out how good (or bad) we think a game is.

**★★★★★ Revolutionary**  
 Brilliantly conceived and flawlessly executed; a new high-water mark.

**★★★★ Excellent**  
 A high-quality and inventive new game. Either a step forward for an existing genre, or a successful attempt at creating a new one.

**★★★ Good**  
 A solid and competitive example of an established game style.

**★★ Average**  
 Perhaps competent; certainly uninspired.

**★ Bad**  
 Crucially flawed in design or application.

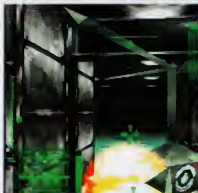
### PlayStation

#### Kileak The Blood

**Publisher:** SME  
**Developer:** Genki Co. Ltd  
**Size:** 1 CD-ROM  
**Release Date:** Out now (Japan)

Given the current fascination with *Doom*, it comes as no surprise that the first batch of PlayStation software includes a 3D shooter adventure, *Kileak The Blood*.

This title has more in common with *Wolfenstein 3D* than



Unlike the cardboard cut-out creatures of *Doom*, *Kileak The Blood* presents real, 3D enemies

*Doom*. The graphics are detailed and convincing; corridors and rooms move quickly and fluidly; and enemies are also fully realized in 3D, which helps to reinforce the realism of the environment.

Sadly, the first five levels are all very similar, with similar enemies and a predictable line in metallic decor. Once you reach the sixth level and beyond, though, the Moonbase Alpha look is dispensed with as you travel deep underground, exploring caves and labyrinthine tunnels.

Annoyingly, the rooms often feature attractive looking devices — boxes, computer banks, items

### PlayStation

## SUPERFICIAL

#### Raiden

**Publisher:** Seibu  
**Developer:** Seibu  
**Size:** 1 CD-ROM  
**Release Date:** Out now (Japan)

It seems strange that *Raiden*, in different guises, was one of the first releases on two next generation machines. The Jaguar version was only the third game for that system, and now the PlayStation is playing host to a two-in-one package of two of Seibu's frantic coin-ops less than two months after launch.

It's not as though vertically scrolling shooters like *Raiden* are a world-leading genre. But here *Raiden Project* is, and at first sight it's disappointing. The programmers took the rotating polygon spacecraft from the *Raiden II* coin-op's attract mode, developed an entire intro sequence from it, and unfortunately, it's not brilliant.

The first game, now close to five years old, offers little to anyone but the most nostalgic of arcade connoisseurs. Its gameplay often frustrates, with a typically tough coin-op structure that will win it little favor with 16bit graduates who have long since become accustomed to hard but fair shoot 'em ups.

*Raiden II* (the second of the two) is much more worthwhile, though it too suffers from a difficulty curve geared toward the coin-op market. The graphics in the arcade mode are perfectly representative of the coin-op, with spectacular animation and detail.

*Raiden Project*'s soundtrack is awful. Although the sound effects are weighty, the chip-played music lacks any appeal whatsoever and does the PlayStation no favors.



Action slows with two players, enemies, and huge explosions onscreen (above). *Raiden*'s vast arsenal provides for various bombs (top)

*Raiden Project* features, in effect, the actual coin-ops rather than a home version. The temptation to add up credits is irresistible, and the result is that you breeze through in no time.

*Raiden Project* is a solid indicator of the PlayStation's ability to manipulate sprites and as such will find a welcome home with early adopters. But with endless credits at your disposal, and some poorly structured action, it's an ultimately shallow experience.

**Rating:** ★★



of furniture and so on — the bulk of which you can't interact. The items that aren't just there to add visual interest merely provide a new FMV sequence rather than intriguing plot twists.

While graphics and movie sequences are to be commended, less attention has been made on actual gameplay. *Kileak The Blood* is not without merit, but it's below the PlayStation's abilities in terms of visuals and playability. Graduates of the PC school of exploration games will find it naive and repetitive.

Only after the first five levels does the game begin to become vaguely captivating. *Kileak The Blood* is not without merit, but it's below the PlayStation's abilities in terms of visuals and playability.

Graduates of the PC school of exploration games will find it naive and repetitive.

**Rating: ★★★**

## 3DO

### Flashback

**Publisher:** U.S. Gold  
**Developer:** Delphine Software  
**Size:** 1 CD-ROM  
**Release Date:** Available now

This game is essentially identical to the Sega CD version we reviewed last issue. The one main difference being — thanks to 3DO's 24-bit color palette — the clean, sharp graphics. The rendered 3D cut scenes, added to the CD version, have benefited the most; they're not only more colorful and thankfully lacking the "rusty screen door"



If you enjoyed the way the jungles looked on *Flashback's* cartridge and Sega CD sisters, you'll just love the way the crisp, sharp images appear on the 3DO. Other than that, this is simply *Flashback* — again

effect that's always plagued the Sega CD, they also seem to have more animation frames.

Otherwise, this title is still the same great game that we've been looking at for a couple of years. And one last note, the 3DO controller, for once, doesn't interfere (much) with the game's demanding control scheme.

**Rating: ★★★**

### Theme Park

**Publisher:** Electronic Arts  
**Developer:** Bullfrog  
**Size:** 1 CD-ROM  
**Release Date:** Available now

This title is nearly identical to the PC version, which elevates it to a mild cut above the Jaguar version we reviewed last month.

*Theme Park* is a unique spin of *SimCity*-style resource management games. This game gives you a chance to design fun things like roller coasters, log rides, and spooky houses, but the interface isn't very intuitive, and the game never measures up to other *Sim*-style games.

While you can affect everything from ticket prices to how much salt is thrown on fries (affecting drink sales), in the end there's so many nit-picky things to keep up with there's little fun to have — every thirty seconds you have to drop what you're doing to order another shipment of burgers, or worse, to keep up with the stock market (a segment of the game which isn't that exciting, but can mysteriously destroy your park when you're not looking). It's cute, but we're waiting for 3DO's *Transport Tycoon*.

**Rating: ★★**

## 3DO

# LETHAL



As a virtual warrior from the present, you have to travel through both time and cyberspace to save the future



The virtual world of *Perfect* is unusually dark and shadowy for a game that relies on texture maps (above). Yeah! Blast 'em! The combat is the best thing about the game, in fact, in many ways, it's the only thing about the game (inset)



### Immercenary

**Publisher:** Electronic Arts  
**Developer:** Five Miles Out  
**Size:** 1 CD-ROM  
**Release Date:** Late May

*Immercenary* is a new first person shooter set in a particularly lethal virtual world.

In the not too-distant future, everyone is trapped in the virtual world of *Perfect*, which is, actually, anything but perfect. They're locked in perpetual combat as they try to fight their way to the top of the heap to defeat *Perfect 1* — the SysOp in charge — with the slim hope that beating him will provide a way out. The city of *Perfect* is nicely realized, and the 3DO's texture mapping is put to good use — there's a lot of terrain here, from swamps to more urban jungles — although in the late beta version we were given to review, textures still dropped out every now and then, leaving you surrounded by wire frames. It's a testament to the game, however, that this didn't put us off much. The virtual combat is incredibly intense and is warned the learning curve is steep, too.

Add in a dozen bizarre *Perfect* citizens to talk to, and you've got a game that's familiar but different at the same time.

**Rating: ★★★**

## rating jaguar 32X

32X

## RHYTHMLESS

## Tempo

**Publisher:** Sega  
**Developer:** Sega  
**Size:** 24 Mbits  
**Release Date:** Available now

Sega, having run out of rodent platform heroes, is now moving on to the insect world. This time the biological star is Tempo, a self-proclaimed hip-hop, groovin' grasshopper who must defeat the vile, space octopus, King Azalos, and his insect army. That is, if any of this sounds remotely interesting to you.

Tempo's soundtrack, filled with jazz and tropical island tunes, is a good one, and rich backgrounds, colorful animation (32,768 colors? No!), and unique enemies almost make you forget this is just another platform game.

But alas, none of these good qualities keep Tempo from missing the beat and being yet another poor 32X effort.

**Rating:** ★★

The world's only blond-haired grasshopper gets down to some good tunes



Just exactly where are all those 32,768 simultaneous colors? (below) Don't despair though, the soundtrack, rich backgrounds, and unique enemies make for great fun



## Jaguar

## Burn Out

**Publisher:** Atari  
**Developer:** Atari  
**Size:** 2 MBs  
**Release Date:** Available now

After several lukewarm attempts (Checkered Flag, Club Drive), Atari has now developed a racing game that not only looks fantastic, but also gives a true feeling of high speed competition.

Eight different tracks, each with a specific classification



In Burn Out, technical tracks are for those who've mastered the cycles' control system

(technical, high-speed, semitechnical) are available from around the world, offering plenty of playing variation. Each country is represented in brilliant background artwork, with time passage marked by the setting of the sun, lights in buildings coming on, and headlights beaming from the fronts of cars.

Burn Out is essentially straightforward racing at its best, but those who are looking for extra action won't find it here.

**Rating:** ★★

## Fight for Life

**Publisher:** Atari  
**Developer:** Atari  
**Size:** 4 MBs  
**Release Date:** Available now

Fight for Life — Atari's entry into the next generation fighting game arena — displays some great features new to the punch-out world as well as some of the worst execution and gameplay we've seen yet.

Eight fighters, polygon modeled and armed with a scattering of special moves, compete in various netherworldly



Poor movement and control keep Fight for Life far from nearing the expectations of today's gamers

arenas in the Virtua Fighter/Toh Shin Den/Ring Out tradition.

Movement is just stilly. Characters shuffle around the ring with all of the grace and poise of an injured hunchback. Despite the innovative idea of awarding characters with special moves after each round, the ending gameplay is almost completely unplayable no matter how many tricks you learn.

Although this game is a step in the right direction, the horrible fighting movements are reminiscent of 'Rock 'em Sock 'em Robots,' which leaves Fight

for Life unable to even compare to the excellent titles currently available. If you own a Jaguar and you're looking for a fighting title, you'll need to keep waiting.

**Rating:** ★★

## 32X

## Mortal Kombat II

**Publisher:** Acclaim  
**Developer:** Probe  
**Size:** 24 Mbits  
**Release Date:** Available now

Last year, Mortal Kombat II hit the consoles with all the heinous fatalities of the arcade version. The SNES version was almost an exact replica of the arcade version and Genesis' attempt was a couple notches down, due to graphics and sound.

Now, five months later, Genesis owners can play the same game SNES owners are already tired of playing. All they have to do is shell out \$150 bucks for a 32X and another \$70 for the cart. To its defense, the 32X version has the best sound,



From all of the 32X's 32,768 simultaneous colors, the only one *Mortal Kombat II* fans really want to see is red, blood red

graphics, and fighting for any home version yet. However, with *Mortal Kombat III* coming right around the corner, this game is already old news. *MK II* is a great game, but it's a serious case of "been there, done that!"

Rating: ★★

### Night Trap

**Publisher:** Digital Pictures  
**Developer:** Digital Pictures  
**Size:** 2 CD-ROMs  
**Release Date:** Available now

Two years and a couple of Congressional hearings later, the infamous *Night Trap* has returned in all its unpurged glory. Mature rating in hand, rising slowly from the graves like the very vampires it features.

Thanks to the 32X's 32,000 color palette, the video quality is vastly improved over the original Sega CD, and the interface is better looking, too. However, this is still one of the most crashing bores ever released — Dana Plato, miniskirts, and drills in the neck notwithstanding, this is a nongame, folks. It's so badly structured that you spend all your time following those damned Augs, tapping one button, and almost never getting to see the video the game is supposed to be about. Just forget it. Leave it alone. Let it die.

Rating: ★

## Neo-Geo

### King of Fighters '94

**Publisher:** SNK  
**Developer:** SNK  
**Size:** 196 MBs  
**Release Date:** Available now

SNK's *King of Fighters '94* is not necessarily a new title, but well worth a second look. The game uses the tournament atmosphere

typical of the fighting game and takes it to the next degree by bringing teams from several different classic games to compete in the battle to end all battles.

In addition to all new characters, teams from *Fatal Fury*, *Art of Fighting*, and *Ikar Warriors* come together in tag-team matchups that have all the special attacks and defenses that a player could hope for. The multiple fighters on each team adds a whole new approach to the tactics of fighting and adds some originality to what would have been just another fighting game.

Every fighting fan should take a look at this one either in the arcades or in the home.

Rating: ★★

### Samurai Shodown II

**Publisher:** SNK  
**Developer:** SNK  
**Size:** 202 MBs  
**Release Date:** Available now

The dark force that made *makusaka* take on the fiercest warriors in the world has returned to torment Haohmaru and the rest of the *Shodown* gang.

Up to fifteen different character choices, plus a gaggle of new moves and attacks (including sword snags, feint dashes, taunts, and plenty of incredible looking special moves), make this one of the most impressive Neo-Geo fighters yet.

Unfortunately, even in this full arcade reproduction, *Samurai Shodown II* is still just another fighting game. It's definitely a game every Neo-Geo owner should invest in, but not a reason to buy a machine if you don't own one.

Rating: ★★

## PC

### Atari Action Pack

**Publisher:** Activision  
**Developer:** Activision  
**Size:** 1 CD-ROM  
**Release Date:** Available now

The ultimate answer for those into retrogaming, Activision's *Atari Action Pack* is a collection of 15 titles from the long forgotten days of 2600 madness.

Unfortunately, while it sounds like a lot of fun, most of these games are a lot more insane than you remember them being.

## PC

# SPECTACULAR

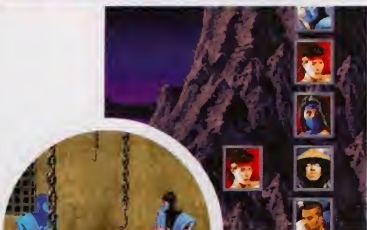
### Mortal Kombat II

**Publisher:** Acclaim  
**Developer:** Williams  
**Size:** 1 CD-ROM  
**Release Date:** Available now

This follow-up to the best fighting game ever released on the PC is just as spectacular as you'd expect it to be. Each of the 12 different fighters are carefully represented with all of the special moves, fatalities, babilities, and friendship moves of the original. Graphics are pleasant, although the animation does have a tendency to freeze up during heated play.

Players without a Gravis GamePad will want to get one: playing with standard controls is nearly impossible, but with the pad expect rapid response and an easy to handle button layout. If you like fighting games, this is the best that's available.

Rating: ★★



All of the original characters are here, looking much as they did in the original arcade release (top)

The tournament play is fully represented with all hidden characters and stages represented (above). Arcade fans will find that all their favorite combos still work in the PC release (inset)



## rating pc

PC

## DANGEROUS

## Descent

**Publisher:** Interplay  
**Developer:** Interplay  
**Size:** 1 CD-ROM  
**Release Date:** Available now

The greatest of the Doom-killers yet, *Descent* manages to add enough extras, style, and head-to-head network play to set itself apart from all of the rest.

While it's still basically a straightforward first-person shooter, the player is in an attack craft capable of free motion in three dimensions. As if keeping up with this weren't enough (and it often is), the enemy's artificial intelligence keeps it from accepting the cannon fodder role so prevalent in this genre.

Especially on the higher levels, enemies bob and weave, fire off spreads of shots, and even hide when damaged, which make for a combat experience requiring a good bit of planning and strategy. Truly impressive graphics, smooth animation, and many loads of powerups make this a title that will keep most gamers glued to the screen for hours.

Unfortunately, while it may be better than *Doom*, *Descent* has delayed its release long enough to be overshadowed by the release of *Id Software's* newest blockbuster, *Heretic*.  
**Rating:** ★★ ★★



Powerful items float around in the cavern just waiting for wandering heroes to install (left)



Facing off with *Descent's* various opponents in three dimensions can be a lot to keep up with (top). Lasers don't pack the punch of later finds, like the Vulcan Cannon, but ammunition for the batteries is much easier to come by (inset)



For those who prefer a more Zen-like approach to gaming, Activision's *Atari Action Pack* features the return of the very strange *Fishing Derby*

Most players will load up their favorites (choose between *Boxing*, *Chopper Command*, *Cosmic Commuter*, *Crackpots*, *Fishing Derby*, *Freeway*, *Frostbite*, *Grand Prix*, *H.E.R.O.*, *Kaboom!*, *Pitfall*, *River Raid*, *Sequest*, *Sky Jinks*, and *Spider Fighter*) and wonder what in the hell they ever saw in these titles in the first place.

The *Atari Action Pack* is a useful reminder that not all of the

odies are worth playing again. You've come a long way, baby.  
**Rating:** ★★

## D-Day: Operation Overlord

**Publisher:** Virgin  
**Developer:** Rowan Software  
**Size:** 1 CD-ROM  
**Release Date:** Available now

A flight simulator designed with historical accuracy in mind, Virgin's new *D-Day: Operation Overlord* does what it sets out to do very well. More than 130 reconnaissance photographs from the Smithsonian Institute were scanned, and all airfields, guns, and enemy positions are in the exact places they should be.

Each of the three fighters in the title was reproduced with an equal amount of care, with each and every dial and gauge performing exactly as it would in its real world counterpart.

While all of this is very interesting historically, *D-Day: Operation Overlord* doesn't play any better than other flight sims that are already available (*Aces over Europe*, *Pacific Air War*). This title is strictly for WW II buffs or flight-sim fanatics.  
**Rating:** ★★ ★

## Diggers

**Publisher:** Millennium  
**Developer:** Millennium  
**Size:** 1 CD-ROM  
**Release Date:** Available now

*Diggers* has all of the appeal of *Lemmings* with a good dose of exploration and greed thrown in to boot. The basic idea is to control a team of four little miners (four different races each with special talents), to dig as fast and far as they can in order to uncover gems which they can then sell for cash.

The enormous levels — each consisting of several different



A somewhat depressing return to last decade's hit, *Pitfall!* (sigh)

screens — and clever powerup items keep the game refreshing and unique, while the somewhat less than spectacular graphics and sound effects perform an admirable job of complementing the title's offbeat atmosphere.  
**Rating: ★★★**

## Discworld

**Publisher:** Psygnosis  
**Developer:** Psygnosis  
**Size:** 1 CD-ROM  
**Release Date:** Available now

Based on the fantasy novels of Terry Pratchett, *Discworld* is essentially a graphic adventure that takes place in a magic world of mirth and mayhem.

While this is your standard point-and-click quest, *Discworld*'s off-the-wall (and very British) sense of humor delivers enough originality and comic punch so that even those who aren't familiar with the series can find a rewarding and laugh-filled session with each play. The game's zany characters come to life on screen,

represented by solid graphics and great voice acting.

Although the puzzles are satisfactory, in the end, it's the laughs that make this game worth purchasing. If you're a fan of Douglas Adams or Monty Python, this is certainly a title you want to pick up, otherwise there's not much that stands out.  
**Rating: ★★★**

## Front Lines

**Publisher:** Impressions  
**Developer:** Impressions  
**Size:** 1 CD-ROM  
**Release Date:** Available now

Basically a straightforward war game with a futuristic twist, *Front Lines* is a middle-of-the-road strategy title with an impressive set of introductory graphics.

Just like the classic board games, players deploy their available vehicles, and then follow a turn-based play system that enables them to move all units, wait, fire all units, and wait. While the creativity behind the uni-

design is commendable, there's nothing really inherently different about this game. Most fans of war games will find *Front Lines* a good example of the genre (if a little predictable), but everyone else's eyes will surely glaze over after a few minutes of play.  
**Rating: ★★**

## Retribution

**Publisher:** Gremlin Interactive  
**Developer:** Gremlin Interactive  
**Size:** 1 CD-ROM  
**Release Date:** Available now

A low-tech cross between *Wing Commander* and *Battlezone*,



In *Retribution*, missile bases and enemy construction sites will be your first targets. The following levels become very hard after that

## PC



The magic gauntlets deliver a devastating hand-to-hand weapon into the hands of the violent (above). Equivalent to *Doom*'s pistol, the starting wand should be replaced as soon as possible (below)



# RIGHTEOUS

## Heretic

**Publisher:** Id Software  
**Developer:** Id Software  
**Size:** 20 MBs  
**Release Date:** Available now

After the somewhat disappointing release of *Doom II*, Id Software has released the follow-up everyone has been waiting for. With its unbelievable animation and graphic punch, *Heretic* shows that the first-person genre is still capable of evolving.

Players take on the role of a wizard on a quest through the most dangerous planes around. Like *Doom*, there's plenty of flame-slinging bad guys and powerful weaponry laying about, and that combination always makes for a good, old-fashioned gore-fest.

All the armament is spectacular. Each weapon touts two different effects depending on your use of other items. The magical equivalent of everything from a flame thrower to a slingshot has shown up here, including a fantastic set of gauntlets that enables players to give a fun to watch dose of arcane hurt to anyone who gets too close.

Overall, the gameplay really is very similar to *Doom*, but the load of new villains, new maps, and the addition of special items, other than weapons, more than makes up for the similarities. If you're only going to get one action game in the next couple of months, this is the one.

**Rating: ★★★★★**

The demons, here in Id's newest arrival, *Heretic*, cause trouble throughout the game (inset)

PC

# LUKE WARM

## Dark Forces

**Publisher:** LucasArts  
**Developer:** LucasArts  
**Size:** 1 CD-ROM  
**Release Date:** Available now

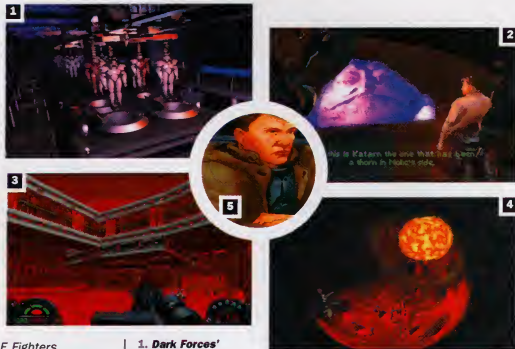
LucasArts knows when it's onto a good thing. The company has made a fortune out of George Lucas' celebrated cinematic trilogy, and now, after a brief excursion in the enemy's hot seat (*TIE Fighter*), the California-based programmers return to the Rebel cause for a maze game which they claim offers all the adrenaline of Id Software's *Doom*, plus an enthralling strategy element.

A brief premission briefing explains your task and then you're plunged into the first level. The action then starts immediately — you're actually shooting within seconds — and the engine belts along rapidly (although 8MBs of RAM are required). LucasArts' skill in crafting a storyline can't be faulted. The *Star Wars* plot creates a dramatic and plausible atmosphere, with storm troopers and Imperial guards constantly rushing to ambush you, *TIE Fighters* docking as battle rages around them, and the deadly threat of the mysterious Dark Trooper ever-present.

But then the annoyances begin. All of the weapons protrude into the screen from the side for quite a distance. So, not only is hitting your target difficult but, unforgivably, a crucial part of the playing area is obscured.

Whereas *Doom* had 30 missions of varying size and difficulty, *Dark Forces* has 14 exceptionally difficult ones. This is its main problem. And the promised strategy element is no more than a token gesture — lugging mines around looking for a ship is hardly a thrilling experience. After the first level, expect to be well and truly stuck.

Another significant drawback is that there's no multiplayer experience. Presumably, LucasArts thought that having hordes of Rebel spies swarming around a star destroyer was taking too much of a liberty with the *Star Wars* plot, but the rapid growth of networks means that *Doom*, *Heretic*, *Descent*, and *Magic Carpet* all have a distinct playability advantage.



1. *Dark Forces'* graphics are impressive 2. This level is probably the most dramatic, as well as one of the most playable. The excellent cut scenes illustrate the *Star Wars* story perfectly. And of course, your favorite evil, sluglike villain, Jabba the Hut, appears here 3. There are plenty of enemies to slaughter in *Dark Forces*, but the excitement of *Doom* is absent 4. That LucasArts' space-faring madness pervades the game 5. The hero, Kyle

Ultimately, *Dark Forces* offers nothing that *Doom* didn't provide a year ago apart from some pretty *Star Wars* cut-scenes. And technically, it's on a par with the most accomplished 3D games, but it seems that LucasArts' reputation as a software pioneer has made it wary of producing an instantly playable title.

*Dark Forces* will be judged by *Doom*'s standards and, in most of the crucial areas, it falls just short.

**Rating:** ★★

*Retribution*'s biggest appeal is in its ease of play and low tech machine requirements.

Equipped with different objectives, players venture out on missions in various land- and air-craft looking to fulfill Headquarter's goals to the letter. There's no fooling about on this either: If your commander tells you to destroy three buildings and you decide to help out and destroy four, for instance, you will not only not get credit for the mission, you'll probably have to start your game over to do it.

Mediocre graphics and a generally weak set of sound effects don't do much to generate excitement for what, in the end, is a yawner of a game.

**Rating:** ★★

## Virtuoso

**Publisher:** Vic Tokai  
**Developer:** Elite Systems  
**Size:** 1 CD-ROM  
**Release Date:** Available now

*Virtuoso* is the story of a rock musician who, in the year 2055, decides to chuck it all and spend his time battling it out in Virtual Reality. The game is *Doom* without the first person perspective or any of the fun.

Some of the texture-mapped combat areas (you've got a choice between Mars, a Haunted House, and the "Underwater Biosphere") are kind of cool, but it's not like the market isn't crawling with them already. Your rock star buddy automatically hugs the wall when

he gets close — which is often — and the perspective shifts when he does, which is a serious nausea-inducer in tight corridors, and doesn't seem to provide any defensive advantage either. Control is only so-so, and for a game based around a rock star, the music is surprisingly lame.

**Rating:** ★★

## Word War 5

**Publisher:** Crealude  
**Developer:** Crealude  
**Size:** 1 CD-ROM  
**Release:** Available now

*Word War 5* is a collection of five word games which include simple, unscrambling puzzles and many

more odd and bizarre challenges we don't have room to describe. The problem here is that, while the games are certainly different, they're also obscure (so are a lot of the words, like "glebe"). Even when you finally understand the rules, you have to scratch your head and wonder what the point is — is it so you can assemble five letter words from a continuing series of given letters? So what!

There's no timer, or even a point total to shoot for. And, things aren't helped much by the soundtrack, which isn't as much music as weird sound collages that range from distracting to really annoying. *Crealude's World War 5* is an obscure, weird, and severe edutainment misfire.

**Rating:** ★★



## rating macintosh sega cd

## Macintosh

## Digi Folies

**Publisher:** Crealude  
**Developer:** Crealude  
**Size:** 1 CD-ROM  
**Release Date:** Available now

This is a simple game. You arrange numbers on a grid so that no number is adjacent to itself, or a number from which it differs by one (a five can't sit next to a four or a six, for example).

Generally, you begin with a handful of numbers in place and fill in the empty spots. There are six variations, allowing you to begin with a full grid to rearrange, or have sets of numbers linked, and to place them in groups. It looks nice, and there's some pretty, if generic, music, but it's only interesting for about 10 minutes. It might be good for very young children who are just learning their numbers, but for anyone above the age of eight, the game is underwhelming.

**Rating:** ★★

## SimTown

**Publisher:** Maxis  
**Developer:** Maxis  
**Size:** 1 CD-ROM  
**Release Date:** Available now

While Maxis released this title as a children's game, the large contingent of *SimCity* fans will probably ensure that *SimTown* is destined to disappoint both old and young alike.

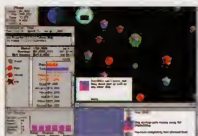
Although Maxis followed its usual high standard for graphics and sound production, gameplay seems to have been entirely forgotten somewhere in the development process. Intended to be a microcosm version of *SimCity* for children to create their own virtual neighborhoods, *SimTown*'s sadly limited building options, along with a painfully slow performance, ensure that the game stays boring and repetitive after only a few turns. A good title for parents whose kids spend too much time on the computer.

**Rating:** ★

## Spaceward Ho 4.0

**Publisher:** New World Computing  
**Developer:** Delta Tao  
**Size:** 2 MB5  
**Release Date:** Available now

*Spaceward Ho* been through a lot of changes since its initial release



**Spaceward Ho adds an entirely new strategy to the war fest**

years ago, and the latest Macintosh incarnation seems to have refined this simple strategy game to its perfect form.

In addition to a few minor tweaks to graphics and sound effects, *Spaceward Ho 4.0* includes biological ships (slightly less effective fighters requiring no metal to build), tanker craft (which keep your ships from having to return to a colonized planet to refuel), and many other cool vehicles. If you don't already own this game, crawl out from your dark-ages cave and make sure to get this version. If you already own a copy, now is definitely the time to step up to a new level of play.

**Rating:** ★★

## Sega CD

## Dungeon Explorer

**Publisher:** Hudson Soft  
**Developer:** Westone  
**Size:** 1 CD-ROM  
**Release Date:** May

It might be a *Gauntlet* retreat — and sometimes it's just as tedious — but the designers at Westone



**Let me at 'em! This game looks like Gauntlet, and it plays a lot like Gauntlet too, but Dungeon Explorer is a game all its own**

have made some improvements for *Dungeon Explorer*.

For starters, there's a definite structure and goal — you work your way through six different fortresses, then ascend the Darkling Tower to free a trapped goddess. You've got eight characters to choose from, while up to four can play with a multitap. Each section has been smartly kept to a manageable, one-sitting size, and there's a place to save the game in between, plus a weapon shop for equipment upgrades. The title isn't groundbreaking, but most of the puzzles are clever, and the variety and challenge will keep your interest high.

**Rating:** ★★★

## Keio Flying Squadron

**Publisher:** JVC  
**Developer:** JVC  
**Size:** 1 CD-ROM  
**Release Date:** Available now

*Keio Flying Squadron* is another in the shooter genre, this time featuring a heavy anime flavor.

The heroine, Rami, flies on her faithful dragon, Spot, blasting away at mutant raccoons and spacecats, then works up to taking on the US Navy and Russian army. Between stages are some minimally animated cut scenes, and the whole game teeters on the edge of either being silly/funny or just plain stupid ("Attention! You... on the dragon. Turn around and go home! Repeat: Go home! You don't want to tangle with the US Navy!"). The game receives an extra star because a few bits actually made us laugh, but that's it.

**Rating:** ★★

## Lords of Thunder

**Publisher:** Hudson Soft  
**Developer:** Hudson Soft  
**Size:** 1 CD-ROM  
**Release Date:** Late May

Lately, the Sega CD has been inundated with side-scrolling shooters including this one, *Keio Flying Squadron* (the game reviewed before this one), and *Android Assault* from Sega. Let's hope we're not seeing a trend.

*Lords of Thunder* is pretty to look at — it reminded us a lot of



**Though reminiscent of Forgotten Worlds, Lords of Thunder just doesn't have what it takes**

*Forgotten Worlds*, a classic of the genre. There's seven levels that can be played through in any order. Before each level, you choose one of four types of assault armor, each with its own arsenal. While some, like the Fire Armor, are cool, others, like the Earth Armor, are nearly useless.

The game has its moments, but you've seen them, and played them through hundreds of times before as well. Go away!

**Rating:** ★

## NBA Hangtime '95

**Publisher:** Sony Imagesoft  
**Developer:** Sony Imagesoft  
**Size:** 1 CD-ROM  
**Release Date:** Available now

First things first — this game is by no means a sports simulation,



**Don't look. Japan takes on Africa in a very ugly game of two-on-two in NBA Hangtime '95**

It's more like *NBA Jam* without any of the charm.

Every NBA team is represented by three players, and you can take your favorites to the court for some tedious and

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# Companion



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## rating genesis

Sega CD

## CALCULATED

## Earthworm Jim: Special Edition

**Publisher:** Interplay  
**Developer:** Shiny Entertainment  
**Size:** 1 CD-ROM  
**Release Date:** May

While a prepackaged, presold character, who's as cynically calculated for hip success as Earthworm Jim does rub us the wrong way, we admit there was a cracking good game to back him up, and this new CD version is even better.

Taking advantage of CD's storage capacity, Shiny has added new levels and reworked existing ones, resulting in a game that really packs in the extras. In addition to his space gun, Jim can now pick up an assortment of rockets to shoot, and among his new enemies is an oversized, indestructible monster named Big Bruty eating everything in his path.

The already intricate animation has also been added to, and Jim can now boast of some 300 frames of character movement. Plus, in a couple of new stages, Jim finds himself without the cybersuit that gives him arms and legs, forcing him to cavort around in the nude; whether that's a plus or a minus though, we're not sure. In short, great stuff.

**Rating:** ★★★



Among the cool extras you can find on the CD version is this opening pencil test, which shows Jim making moves you won't find in the rest of the game (inset)



Oh, and uh, there are a few moments where you get to see Jim outside of his cybersuit. Hmm, a naked worm. Well, isn't that interesting (top). Although you can't tell from these still pictures, the character animation is smoother than ever — as if that were possible (below)

annoying two-on-two action. Even the announcer, Dan Patrick, sounds incredibly bored as his digitized voice lays down generic comments and blatant advertisements for poor products.

The CD access time is unbearably long, the players all look the same, the control is horrid, and it's possibly the worst basketball game of the year — but wait. There's more. You can play the ESPN2 world tour and have sumo wrestlers dunking. Don't even put other games near this one, it could be contagious.

**Rating:** ★

## Wheel of Fortune

**Publisher:** Sony Imagesoft  
**Developer:** Amuse  
**Size:** 1 CD-ROM  
**Release Date:** Available now

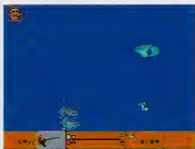
It's not surprising that this is coming from Sony, since Sony owns Columbia, which produces the TV show. So, it's got the actual music and logos, and digitized footage of Vanna White — lots and lots of Vanna White.

Watch Vanna before you spin, after you spin, between spins, between games — in fact, not two seconds go by before Vanna is back, chiming in with a less than sparkling delivery. And you discover how to appreciate how much turning letters — without having to say a word — is really Vanna's dream job.

If it sounds like all this footage slows everything down, yes, it does. It manages to make one of the least intellectually challenging games ever boring as well. Even as a party game, *Wheel of Fortune* doesn't cut it.

**Rating:** ★★

Basically, this game is loaded with extras and so patient gamers may even enjoy the slow paced sim fishing. Still, for the



You wait for nibbles a lot in *BMC*. But if you're patient enough, there is some mild fun to find

most part, *Bass Masters Classic* is strictly for fishing fanatics.

**Rating:** ★★★

## Battle Frenzy

**Publisher:** Domark  
**Developer:** Domark  
**Size:** 16 MBits  
**Release Date:** Available now

Domark's *Battle Frenzy* is the second *Doom*-clone (*Accolade's Zero Tolerance* is the other) to make its newly blood-soaked path to the Genesis.

On the positive side, *Battle Frenzy* has a large playing area, exploding robots, loads of weapons, and a great two-player



The two-player mode cuts down on the playing area, but it's the only way to enjoy *Battle Frenzy*

## Genesis

## Bass Masters Classic

**Publisher:** Accclaim  
**Developer:** Trimark  
**Size:** 16 MBits  
**Release Date:** Available now

Get out your six-pack and get ready to hit the lakes in *Bass Masters Classic (BMC)*.

Compete and place in a series of four local, state, and regional bass fishing tournaments leading up to the Classic. You can choose any of nine fisherman, and visit the bait shop for your choice of six different baits (spinner, crankbait), each with their own specialty. Also pick up any of 3 fishing lines, 3 rods, 3 engines, and 2 fish finders.

mode that enables you to cooperatively blast your way through the 12 levels — or go head-to-head in any of three arenas. On the down side, however, each level looks like the one before, the artificial intelligence is awful, and the variety of enemies is nonexistent.

*Battle Frenzy* is a tough game, though the challenge doesn't come from nasty enemies, it comes from fuzzy graphics instead, no gunsight, and jerky control. As a one-player game *Battle Frenzy* is weak, so the two-player mode is enough to make this game worth a rent.

**Rating:** ★★

## Crusader Of Centy

**Publisher:** Atlus  
**Developer:** Nextech  
**Size:** 16 Mbits  
**Release Date:** Available now

*Crusader Of Centy* isn't just another isometric RPG, it's almost an exact replica of the SNES *Zelda*: It's packed with realtime



There are endless similarities in *Zelda* and *Crusader of Centy*; and there's Sonic tanning his spines

arcade action, puzzles, guardians, a vast playing area, and the main character even looks like *Zelda*—with the exception of his blue hat.

The similarities don't stop there, as you venture forth hacking down shrubs to find money, hitting switches to open new pathways, powering up the sword for long-range attacks, gaining powers to run and jump faster; and even the scenery is similar. *Centy* is a mirror image of the immensely popular *Zelda*, and is a load of fun that Genesis owners have yet to experience.  
**Rating:** ★★

## Izzy's Quest For The Olympic Rings

**Publisher:** U.S. Gold  
**Developer:** Alexandria  
**Size:** 16 Mbits  
**Release Date:** Available now

Consider *Izzy* as a recipe for side-scrolling games. First, you need one zany, streetwise mascot (and in this case, that would be the 1996 Olympic Mascot, *Izzy*) who can run and jump on the heads of all his inept enemies.



Look! That loopy Izzy is collecting coins and jumping on heads, what a breakthrough

Next, you need a platform with different levels to jump on, vines to climb, and bonus areas. Don't forget collecting things (medals, torches, and hearts, for instance) for points. Then add a dash of special powerups (like morphing Izzy into a fencer, archer, javelin, rocket, and baseball player) to make your game really cutting edge (yes, heavy sarcasm here).

Cook this all this up, and you have another side-scrolling action game that leaves a bad taste in your mouth.

**Rating:** ★★

## Lemmings 2: The Tribes

**Publisher:** Psygnosis  
**Developer:** Digital Development  
**Size:** 16 Mbits  
**Release Date:** Available now

The addictive puzzling of the first highly successful *Lemmings* game returns with some new features and some good old-fashioned fun.

In *Lemmings 2*, you have to guide 12 different tribes through 120 levels of *Lemming* madness



*Lemmings* have a tough life. Without perfect use of their resources they'll have a short life

for hours of frustration and fun. There are 48 special Lemming skills (like the jet pack, the surfer, the glue pooper, and the stomper) to use as you guide different tribes (Circus, Polar, Beach, to name a few) of the hapless green-haired ones through challenging puzzles.

To love the new features and for those who've never experienced a *Lemmings* game, we strongly suggest checking this game out.  
**Rating:** ★★★★★

## NFL Quarterback Club '95

**Publisher:** Acclaim  
**Developer:** Iguana  
**Size:** 24 Mbits  
**Release Date:** Available now

It isn't easy to break new ground in the football sim arena with titles like EA's *Madden* and Sega's *NFL '95* setting the

standard. *Quarterback Club* doesn't belong on the same field as that company, but it is a decent football simulation that offers a few unique features.

This three-in-one game combines a quarterback competition, a season mode, and 30 reality-based scenarios. The 19 quarterbacks featured in the game are the only actual NFL players available, which is unforgivable for a sports sim. The quarterback challenge enables you to test your favorite quarterback in accuracy, speed, distance, and read, while the simulation mode allows you to reverse key games of the past.

The extras are neat, but if more attention had been paid to the actual game, *Quarterback Club* might have had a chance at tackling the giants.

**Rating:** ★★★

## No Escape

**Publisher:** Sony Imagesoft  
**Developer:** Psygnosis  
**Size:** 16 Mbits  
**Release Date:** Available now

You're Robbins, an inmate on the penal colony island of Absalom, and there's no escape! That's right, you're stuck controlling a character rotoscoped from a real actor, which means his movements look real enough but are limited and, unfortunately, too impossible to control.

To make matters worse, you have to travel through six nonlinear and graphically ugly levels picking up over 90 objects which you must combine to make weapons and traps. Keeping all this in mind, the only way to



Robbins may look life-like in *No Escape*, but trying to control his few moves is no simple task

escape the annoying gameplay, repetitive soundtrack, and frustrating control is to not get caught buying this game!

**Rating:** ★

## Toughman Contest

**Publisher:** Electronic Arts  
**Developer:** High Score  
**Size:** 32 Mbits  
**Release Date:** Available now

This giant 32Mbit cart packs in 24 fictitious fighters from around the world; 5 worldwide venues (very ugly venues, but venues nonetheless); 14 special punches, including a head butt, popeye punch, and windmill punch; a tournament feature allowing up to 8 competitors; 3 fight modes, and various knockdown animation.

With all the possible combinations of punches, *Toughman Contest* packs in plenty of boxing strategy. However, the minimal length of fights and the one dimensional, fuzzy graphics leave this title a few pounds short of the heavyweight title.  
**Rating:** ★★



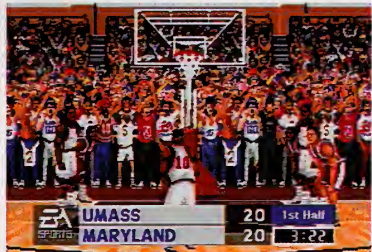
In *Toughman Contest*, you're the odd-looking guy in the green outline and you're capable of various special moves and punches (including a head butt). Here, you deliver a crushing blow to your opponent's head



## rating snes

Sega Genesis

## ALLEY-OOP!



This new free-throw perspective does a decent job of catching the excitement of college basketball — where every game counts

## Coach K College Basketball

**Publisher:** Electronic Arts  
**Developer:** High Score  
**Size:** 16 MBs  
**Release Date:** Available now

The Coach K (Duke coach Mike Krzyzewski) license seemed like a sure bet until this year when Duke, along with Coach K's back, began to collapse. Other than that bit of bad luck, Electronic Arts has captured yet another sport like no other, with a winning combination of sim and action.

*Coach K* uses the same view and engine as *NBA Live '95* (the best pro hoops game to date), throws in larger players, a new free-throw view, 32 current college teams, and eight classic college teams.



are the only things keeping *Coach K College Basketball* from being the perfect college basketball sim.

Still, this game is easily the best attempt yet at capturing the excitement of March madness.

**Rating:** ★★

Classic 70s teams like the one Magic Johnson led at Michigan State come complete with 70's Afros. *Coach K* couldn't use players' names because of NCAA regulations, but the numbers and abilities are there (above). Cheerleaders do their thing (inset)

## Wolverine: Admantium Rage

**Publisher:** Acclaim  
**Developer:** Teeny Woony Games  
**Size:** 16 MBits  
**Release Date:** Available now

Some intense music, nasty attacks, and inventive levels give this game a good solid base, but



In *Wolverine: Admantium Rage*, flipping switches, while once innovative, is now just standard

the constant button mashing and repetitive enemies are just annoying enough to make you forget the good altogether.

Characters like Shinobi Shaw and Eitzyro come to this game straight from the *Wolverine* comic book in the attempt to give the game it a similar feel.

However, no one around here remembers Wolverine jumping from platform to platform and clawing his way through six bland levels in the comic. *Wolverine* is a decent platform brawler, but in the end it's just another platform brawler. And around here that's only good for two.

**Rating:** ★★

## SNES

## Air Cavalry

**Publisher:** GameTek  
**Developer:** Cybersoft  
**Size:** 8 Mbit  
**Release Date:** May

*Air Cavalry* gives you the chance to fly a wide variety of attack



Fly around and blow stuff up. Normally this is what good games are made of, but not here

choppers, ranging from the OH-6D Defender to an AH-64 Apache, and the experimental advanced craft, the AH-98 Valkyrie.

Whizzing over the Mode-7 landscape, blasting away at whatever is on the ground is kind of fun, but unlike, say, *Thunderstrike* for Sega CD, or even the *Strike* series, the missions are all very short, and there's not a lot of variety to the action. For example, rescue operations in the hopelessly underarmed Blackhawk are flown much the same as strike missions, except every once in a while you have to land on the ground. Further, the enemies are absolutely lethal. Success is as much a matter of luck as skill, which makes it frustrating as well as overly repetitive.

**Rating:** ★★

## Brett Hull Hockey '95

**Publisher:** Acclaim  
**Developer:** Radical Entertainment  
**Size:** 16 Mbit  
**Release Date:** Available now

*Brett Hull '95* has little to boast over the original, except for its updated players' roster. In a licensing quirk, the game's got all the actual players' names, thanks



In the excitement category, *Brett Hull '95* stands just behind watching a Zamboni clean ice

to Acclaim's *Players Association* license, but no actual team names, since the NHL license is held by Electronic Arts. Al Michaels, whose annoying play-by-play voiceovers have cluttering up Acclaim sports titles since *Hardball III*, is back as well.

While there's stick and poke checks aplenty, the players are relatively small, and keeping up with the even tinier puck is pure eye strain. And weirdly enough, while the game features line changes, there's no way to make them during time-outs or penalty calls. They can only be done in the middle of the action.

Sure, it's hockey, but *Brett Hull Hockey '95* still stands squarely in the minors.

**Rating:** ★★





In *Kirby's Avalanche*, little bubbles are fired by little dinosaurs. This game is at once so simple, yet so addictive, that you can't go wrong

## Bust a Move

**Publisher:** Taito  
**Developer:** Taito  
**Size:** 4 Mbit  
**Release Date:** Available now

Just when you thought you'd seen the last of the *Tetris*-influenced action/puzzle games, well, here comes another one.

The basic idea is to fire little colored spheres toward the top of the screen — Bub and Bob from *Bubble Bobble* put in a guest appearance running the launchers, so we guess these are actually bubbles. By lining up three or more bubbles of the same color, they explode and disappear. As the ceiling slowly drops down on your head, you must clear the field before time runs out.

It's very simple, using only the control pad and one button to fire, and it's addictive as hell.  
**Rating:** ★★★★★

## Kirby's Avalanche

**Publisher:** Nintendo  
**Developer:** HAL Laboratories  
**Size:** 4 Mbit  
**Release Date:** Available now

What's up with this Kirby thing? Two games in one month? Must have a good agent.

Anyway, this is another game based on *Puyo-Puyo*, which was "Sega-ized" and released stateside last year as *Dr. Robotnik's Mean Bean Machine*. If you've played either of those, you've played Kirby's *Avalanche* — same game, different mascot. Kirby's *Avalanche* is an amalgam of *Tetris* and *Dr. Mario* (which was itself a *Tetris* clone — haven't

seen this much inbreeding since that *Deliverance* touring company came on through) in which you line up similar colored blobs to make them disappear.

It's unique in that it only has two player modes; you'll play against either a friend or the computer, and in our experience, the games can get nice and messy. While we've seen this kind of game before, and this version doesn't offer any improvements, it's still excellent fun.  
**Rating:** ★★★★★

## Metal Warriors

**Publisher:** Konami  
**Developer:** LucasArts  
**Size:** 16 Mbit  
**Release Date:** Available now

Here's a side-scrolling action game that enables you to run amok as you control one of six different powered robots.



Since it can't be new or different, *Metal Warriors* has to make do with being solid entertainment

There's nothing new going on here. In fact, it strongly resembles an 8bit title called *Metal Storm* that was released by Irem over three years ago. Still,

the levels are well designed and there's a wide variety of missions and terrain, from guarding your mother ship in space to making a raid on an enemy gun site in the Arctic. In addition, you can even exit your suit during a mission, fight on foot, or commandeer an enemy robot. The difficulty level varies widely, and for the most part, the game stays challenging rather than frustrating.

In short, there's not an original thought in *Metal Warriors'* cybernetic head, but it's done well for what it is.

**Rating:** ★★★

## Newman/Haas IndyCar Featuring Nigel Mansell

**Publisher:** Acclaim  
**Developer:** Gremlin Graphics  
**Size:** 16 Mbit  
**Release Date:** Available now

The Indy circuit holds an almost mystical appeal for most folks, but they're probably the only ones who'd be interested in this game.

The whole Indy circuit is here, all 15 tracks worth, and



Indy car racing is very exciting, but you'd never know that from *Newman/Haas IndyCar*

there's options for modifying certain elements of your car, including various kinds of brakes and tires, but excluding other little things like the engine and gear ratios. While it feels OK behind the wheel, there's not a whole lot of variation to the scenery, and crashes consist of a surprisingly understated "thump," and then your car is ready to go again, suffering no ill effects.

This game is repetitive, dull, and just not much fun.

**Rating:** ★★

## Spider-Man: The Animated Series

**Publisher:** LJN/Acclaim  
**Developer:** Western Technologies  
**Size:** 16 Mbit  
**Release Date:** Available now

Based on the upcoming cartoon series, this one's got Spider-Man

chasing down four just-escaped bad guys, including old comic book favorites Doctor Octopus and the Green Goblin.

Acclaim had a minor hit with last year's *Spider-Man* title, *Maximum Carnage*, and it might



Spider-Man can't do whatever a spider can, and that makes this game a disappointing loser

be aiming for a semi-sequel here, but it's a little thin, and the whole game has a threadbare, rushed feel. Acceptably drawn but uninspired graphics are compounded by confusing level layouts, twitchy controls, and the tiniest arsenal of fighting moves since *Mighty Final Fight*.

There's some attempt at depth — like a few hidden rooms and cameo appearances by a number of other Marvel bad guys like the Lizard, for instance — but *Spider-Man: The Animated Series* is strictly a by-the-numbers affair.  
**Rating:** ★★

## Star Trek Starfleet Academy Starship Bridge Simulator

**Publisher:** Interplay  
**Developer:** Interplay  
**Size:** 8 Mbit  
**Release Date:** Available now

Enrolling in the *Star Trek Starfleet* as a cadet is a great basis for a game. But here, while the shaded-polygon 3D space combat flies very smoothly, this game lacks enough challenge and enough variety to keep anyone interested for more than a mission or two.

Although they're supposed to be testing your mettle as a Starfleet officer, most of the simulated missions devolve into blasting Klingons, Romulans, Tholians, or whomever else is the bad guy that week. This would be OK, except that combat is handled arcade-style — closer to Fox McCloud than Captain Kirk. Strategy and problem solving aren't exactly required. There are options for flying Klingon and Romulan vessels, but these aren't appreciably different from flying Federation craft. It's a game, Jim, but not as we'd like it.  
**Rating:** ★★

## rating snes

SNES

## SWEET

## Kirby's Dream Course

**Publisher:** Nintendo  
**Developer:** HAL Laboratories  
**Size:** 16 Mbit  
**Release Date:** Available now

All right, *Kirby's Dream Course* is too cute for its own good, but this game is still surprisingly unique and fascinating.

You play as Kirby, that lovable, little puff who's already had three games to himself. Kirby can launch himself in the air or roll along the ground with the idea of bumping into little monsters and turning them to stars. After the last one remaining digs a hole, you aim for it to reach the next tee. It's sort of like miniature golf, but each area is littered with strange obstacles like fans, conveyor belts, warp tiles, ice, and spikes, and each of the eight courses becomes progressively tougher. Plus, Kirby can add backspin or rotation and move in something other than a straight line, not to mention the special powers he can acquire, like turning into a tornado.

Suddenly you're playing a game that's a lot more complex than the superficial, Candyland exterior would lead you to believe. If you can keep from choking on the saccharin, this game is so unique it rates at four stars just for being unlike anything we've seen.

**Rating:** ★★★★★



Maneuver Kirby so he runs into the little monsters. They turn into stars (top). The last monster standing digs the hole that leads to the next area. Although it sounds simple, the difficulty progresses in each level (above)

Not on your life! Note the conveyor belts, water, sand, warp tiles, and other obstacles. Then remember that Kirby doesn't have to travel in straight lines. It's complicated and wild

## True Lies

**Publisher:** LJN/ Acclaim  
**Developer:** Beam Software  
**Size:** 16 Mbit  
**Release Date:** Available now

This game was probably inevitable. Based on the most



Hope you like *True Lies'* top-down perspective because the game's 10 levels are all just like this

overblown movie ever made, the game's 10 levels follow the film closely, starting with Harry infiltrating a mansion during a big

party, and then continuing on through his final confrontation against Crimson Jihad terrorists in an office building.

Although the action isn't bad, with enemies dying everywhere in hideous, bloody splashes, the design isn't exactly innovative, and there's very little variance in gameplay from level to level. There is one stage where you get to pilot a hovering Harrier jet, but it's presented in the same top-down perspective like the rest of the game. Ten entire levels of this get plain monotonous.

**Rating:** ★★

## Warlock

**Publisher:** LJN/ Acclaim  
**Developer:** Trimark Interactive  
**Size:** 16 Mbit  
**Release Date:** available now

Oh boy. Movie licenses must be thinning out. *Warlock* pits you on a quest to recover six mystic runestones before Julian Sands

does. There's a couple of neat bits — your character's main weapon is this funky little orb that follows him around, and any game with giant tarantulas gets an extra half a star — but otherwise, this is eight levels of straightforward side-scrolling action.

The level of challenge varies wildly as well — 90% of the game is a breeze, then you'll come across some picky little thing that's near impossible to get past (there's a water crossing in the Wizard's Castle of level four that



Well, for all you fans of the *Warlock* films, both of you, here's a game based on the movies

will have you tearing your hair out for a week). There's nothing wrong, just nothing notable.

**Rating:** ★★

## SORRY!

No new games were made available for review this month on the following systems:

Saturn

CD-i

Arcade



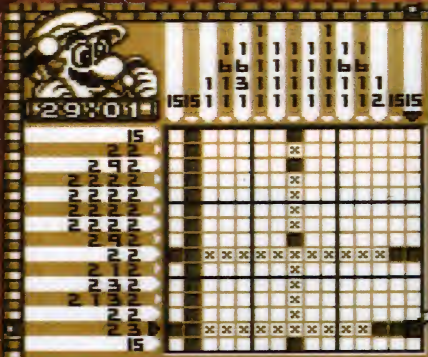
# Requires Great Skull.

## Try Mario's Picross.

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Numbers above the column are read from top-to-bottom. Numbers to the left of the rows are read from left-to-right.



Each individual number tells you how many consecutive squares need to be darkened. If there is more than one number, there will be at least one blank square between each darkened area. If you have figured out that a square should not be darkened, mark it with an "x."

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it takes?



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## Write on, dudes

**I**n issue 3 of **Next Generation**, page 67, Doom is rightfully honored as a "Landmark Game." The paragraph from that issue describing the game, in part, reads, "Doom spread throughout the PC world faster than any game previously — largely due to Id Software's innovative shareware policy of distribution."

We at Apogee are happy to accept your praise. It was Apogee who invented the trilogy method of marketing games as shareware, back in 1987. Id Software was brought into the world of shareware through Apogee (first *Commander Keen*, then *Wolfenstein 3D*), and the guys at Id have done nothing with *Doom* that Apogee did not pioneer, marketing-wise.

Thanks to the otherworldly success of *Doom* many players and editors are being exposed to this marketing model (internally called the "Apogee Model") for the first time, and many are not aware that Apogee first used it six years earlier.

In the shareware community of authors and vendors, Apogee is recognized as the pioneer of nearly every successful marketing method currently in use by game authors. Before Apogee entered shareware, most industry pundits routinely said that games and shareware mixed like oil and water, and that shareware was a marketing avenue only suitable to business applications and utilities.

Id's genius lies in its ability to create stunning games based on cutting-edge software technology. When it comes to shareware marketing, though, Id must give a little credit to the company that showed them how to do it. I'm sure the members of Id must

chuckle whenever they read in magazines this common mistake of misplaced credit.

**Scott Miller, President,  
Apogee Software**

**We stand corrected.**

**I** am in complete amazement at the depth and quality of imagination evident in your magazine. I must confess, however, that I am perplexed by your attitude toward the 3DO; in my opinion, the 3DO has arrived. It has more than 100 games in retail stores, many of which have been awarded esteemed honors in various magazines; it has also found acceptance in four blue-chip consumer electronics companies, an achievement that no other console has realized. Trip seems to have persuaded even Philips into adopting 3DO as its standard in lieu of the undeniably prostrate CD-i.

All this is impressive for an enthusiast console in its third year, but the real reason it has won my enthusiasm is its upgradeability. I would be apprehensive to compute the amount of money I have spent chasing the industry: Atari 2600, Intellivision, ColecoVision, Atari 7800, Atari 800XL, Atari 130XE, IBM PC, MAC+, NES, Genesis, SNES, and finally, the 3DO. None have ever offered an upgrade five times as powerful as its loftiest competitor (in this case Sony's PlayStation) except the 3DO. Not only am I engrossed in stellar gameplay now, but I will be for a long time (in computer years, anyway). I will own a superlative console system, with the M2 upgrade, before the PlayStation even hits Yankee soil.

The gaming industry is in a dangerous state, reminiscent of the early 80's; hardware is increasing in price and power without offering a relative increase in gameplay. Software, in general, has come to a deplorable state decreasing in replay value, and ingenuity; excluding, of course, some notable games. In light of the market's condition I feel it is important for us, the gamers, and you the media, to encourage hardware and software innovations that not only increase the water mark in ingenuity, but also represent a significant increase in replay value. Nuff said!

**ShawnDI128@aol.com**

We agree with most of what you say, Shawn. When it comes to upgradeability, however, many users often feel that upgrading is compulsory, and not the "option" it is often touted as. How many PC owners are currently satisfied with a 386, or even a 486? How many 3DO owners will be happy without M2 when the next generation of 3DO games hits the street? And then, of course, there's the fact that you can only upgrade so far. After a while, you simply have to start over — just take a look at the 32X.

**T**hanks for publishing a fine and informative magazine. Your layout is excellent and the scope of your articles and reviews leaves little to be desired. I just became acquainted with it this month (March '95) and you hit me right where I live.

I am the senior sound designer and composer for Sega Interactive (SIDD) in Los

Angeles. Of course, we've had Saturn and PlayStation around for a while, and I found your reviews of our competition accurate and fair, which is no mean feat these days. I am partial to the Saturn's sound and music capabilities and I look forward to exploiting this new technology as well as pushing the 32X to its limits.

I do have one request. My home computer of choice is a Macintosh 660AV and I really appreciate you supporting this platform in your magazine. Please keep up the good work. My subscription form will be arriving shortly. Thanks,  
**Jeffy7@aol.com**

This imbalance has been addressed (see page 95), and thanks for your support.

**W**hile I have enjoyed reading the first three issues of your magazine, one thing continues to bother me. I have never owned an Atari, SNES, Sega, or any other gaming machine until I purchased my first personal computer in 1989. Virtually all of my gaming experience is on the personal computer with CD-ROM and SoundBlaster attached.

What bothers me, is how can people like Trip Hawkins continue to justify the existence of innumerable gaming platforms, when the installed base of the IBM-compatible multimedia personal computer is about 20 times that of its closest competitor, Sega CD?

The incompatibility problems of the PC aside, there is a large potential marketplace that is being completely ignored by the companies who make



# corresponding

gaming machines like SNES, 3DO, and Jaguar.

According to a chart that **NEXT Generation** printed in the March, 1995 issue, market analysts Robertson Stephens & Co. claim an installed base of between 13 and 20 million multimedia personal computers. Their competitors: Sega CD, Jaguar, 3DO, 32X, PlayStation, Saturn, and Ultra 64 all combined, only account for an installed base of approximately half of that of the multimedia PC.

Now, according to these real life figures, does it make sense to market a platform that will become obsolete with the next wave of technology, or to develop games for the PC, which is in itself, upgradeable and accommodating to that same new wave of technology. While all the SNES kiddies are crying over their inferior 16bit carts, all I have to do is pop in another chip into the override socket of my existing system, and I am ready to rock!

I realize that part of **NEXT Generation's** goal is to provide an insiders' view of the ensuing platform wars, but hasn't that battle already been won? Hasn't the multimedia PC already outperformed the expectations of people like Tom Kalinske and Trip Hawkins? And if these businessmen are so darn smart, why are these people ignoring the largest potential sector of the marketplace in the promotion of their games?

Just imagine how popular Sonic might become if he battled Knuckles on the multimedia PC, in addition to the proprietary Sega platform that about 20 million MPC owners refuse to buy, as it would duplicate hardware we already have!

**KentDB9438@aol.com**

There are lots of problems with this argument (although it's always good to be reminded just how big the PC market is: 1) It probably costs you more to "pop in another chip into the override socket of my existing system" than it costs for an entire SNES setup. 2) Not everybody can afford to buy a PC, as they are generally priced in the \$2,000 range. 3) Not all

PCs are used for gaming; and the active PC gaming community is a lot, lot smaller than 20 million. 4) There are many games that are done better on the dedicated consoles: *Sonic*, for example, or *Toh Shin Den* — nothing on the PC comes close.

**I** am outraged at your recent coverage of the Atari Jaguar in **NEXT Generation #2**. First, you gave the most space to the worst of the three games reviewed. As if that wasn't bad enough, you showed no pictures for *Iron Soldier* (the best of the three), and gave it the least type as well. The photos you did have were far from the best you could've posted. There was so much more space given to every other system, it nauseated me. Your anti-Atari bias shows, and I am disgusted by it. Unless you reverse this trend, you can count me out as a purchaser of your magazine. I know of many other Jaguar owners who feel the same way, as I am in an owner's club.

**Brody McDonald,  
bmcdona@bgnet.bgsu.edu**

OK, but here comes another point of view...

**I** had the recent displeasure of buying an Atari Jaguar last spring and I would like to refute what a reader wrote in **NG 3**.

Your magazine has given Atari more of a chance than they even deserve. I saved my money for four months to buy Atari's system. And what do I have now? I have a \$250 doorstep. Atari's games have been worse than on my Super Nintendo. I admit *AVP* was a good game, but, one game in almost a year? I have seen screen shots of Atari's upcoming games and I, for one, am willing to say I QUIT! I refuse to wait any longer for decent games. I am selling my Jaguar system and waiting for one of the new systems coming out this summer. **NEXT Generation**, please keep the coverage for the PlayStation and Saturn coming. These system already have games better than the Jaguar did in a year!

**Michael King**

You see? You can never please all of the people all of the time. We would just add, however, that someone who has invested considerable money in something is probably not the best objective judge of its merits.

**I** just wanted to say that I support your argument in the letters column of your March issue which was to continue reviewing games for the Genesis and SNES systems. Let's face it: While the newer systems like the 3DO and Atari Jaguar are sporting some kick-butt hardware, their software lineups have lacked the quality that we currently find in the 16bit market. While hardware is the foundation of the next generation of gaming, the bottom line is the quality of the software to come.

**Jason Starnes,  
jgs94a@cs.acu.edu**

Thanks, Jason. As the volume of next generation software grows, then 16bit titles will have to start taking a back seat. But in the meanwhile, some of the best games are to be found on SNES and Genesis.

**I** n your in-depth coverage of Sony's new PlayStation, you published several quotes from different companies regarding Sony's new "dream" machine. The quote that caught my eye was from Darryl Still of Atari. Darryl stated that "The PlayStation is very strong, certainly in comparison to the Saturn, but Sony has absolutely no experience in this market, and the game market really is like no other. You can't just come in and buy market share. You have to build it." Now, I do agree with some of the points made, but my question is this: How can a representative from Atari make these comments? Under this logic, Atari should be a healthy, thriving company, correct? Obviously, the answer to this question, in reality, is no.

**Garret Salomon**

This is a fair point, but Darryl Still's criticism is also unavoidably valid. Perhaps our interview with Sony Computer Entertainment's

President, Steve Race, (on page 6) goes some way toward establishing whether Sony is up to the job of making PlayStation a success or not.

**H**aving read your first three issues, I am impressed with the quality of the interviews published. The people who you are interviewing are rarely seen in other magazines, and the depth of the interviews, as well as the great questions, are greatly appreciated. Keep up the great work. Thank you.

**Scott Litman,  
scott@imaginet.com**

Thank you for the compliment, Scott. What do other readers think? Should we continue to devote prime magazine real estate to interviews with the most powerful figures in gaming? Or could the space be better used for more news or features?

**I** would like to address this letter to all the companies that are competing for a slice of the pie for the "next generation" of videogame systems. As I know of, the Atari Jaguar and the Sony PlayStation both have a multitlink option, where certain games could be played with separate TVs. This comes as a mixed blessing for me. I am tired of playing one-on-one games, especially racing games, where I can only view half of a screen. However, the games that currently use this multitlink are, at this point, either pultrix, or few and far between.

I believe market research should be done to determine how big the market is for multitlink and how virtually untapped this market is. I read in a recent interview with the developers of the game *Ridge Racer* for the Sony PlayStation that the multitlink option will not be used because most Japanese households do not have more than one TV. However, many households in the US do have more than one TV. This is even more likely in the targeted market, who are more "electronically" equipped than most households. If the



videogame companies are truly interested in an American market, then they should seriously consider making more games that utilized the multilink.

I can't tell you how disappointed I was to hear that both *Ridge Racer* and *CyberSled* for the PlayStation can't be played one-on-one on separate screens (once again, we have to report to a one-player option or a split-screen). If you have had the thrill of playing the arcade game *Daytona* (by Sega) with eight of your friends linked up, then you know why this particular issue interests me.

Here is an incentive to make you consider this issue more seriously: If you need two Sega Saturn systems and two separate *Daytona* CDs to play with the multilink option, then it seems likely that more systems will be sold. If anything, the multilink option can be used as a marketing strategy to sell more systems and games! (But only if the games are good...)

I'll let it be known that I will more than likely support the system that has the best multilink games, and I believe that a great many avid videogame fans who will upgrade to the new systems will be looking for the same things I am.

John Lee

Multiplayer games are the future, John, and just about everyone is in agreement about that. It's just a matter of when, how, and cost.

**P**lease allow me to tell you a little about myself. I am a third year computer animation student at The Ringling School of Art and Design in Sarasota, FL. Here, we are trained on SGI Indigos running the latest version of Wavefront and Softimage.

Some companies that recruit from my school are: Walt Disney Feature Animation, Industrial Light and Magic, Pacific Data Images, Rhythm and Hues, Gametek, Sega, Sony Computer Entertainment, Sega, etc. I feel that, with the convergence of SGI and the interactive industry, many of the graduates of Ringling will enter the strange new world of

"interactive" (Interactive — a fancier name for videogames that adults can say without feeling like a child). This upsets me because I don't believe that many people know about Ringling. In my opinion, I feel Ringling has a very strong program computer animation program. Also, I see Ringling as the top American school for aspiring artists/designers in the interactive industry. If you want to find out more info on my school, here is the address:

**Ringling School  
of Art & Design  
2700 N. Tamiami Tr.  
Sarasota, FL 34234  
(800) 255-7695**

We've glad to pass on the word.

**Y**our article on game music was thoroughly wonderful, however, despite mentioning him in passing, you never touched on the current whereabouts of Rob Hubbard. Arguably the single most influential person in many game/musicians' lives (except those newfangled-never-touched-a-sound-chip CD weenies), he popped away to Electronic Arts to do a couple Genesis games long ago, and I've never seen his name since. Where has he gone?

**Maxfield Sasser,  
sasser@skat.usc.edu**

Of course, whenever you single out individuals in a piece it's invariably whom you don't pick which causes the most intrigue. The fine musicians we profiled are only a few of the many, many talented musicians currently involved in the gaming business. Rob Hubbard is still happily employed at Electronic Arts, working on "numerous projects" — we'll try to track him down for some more detailed information by next month.

**S**o far, I've been very pleased with **NEXT Generation**. However, with **NG 4**, I felt I had to write to you. Your history of Atari (Atari: From Boom to Bust) was filled with inaccuracies. Among the highlights: 1) Bushnell's first arcade game was *Computer*

*Space*; not *Computer War*. 2) Although it was secretly a subsidiary of Atari, Key Games released *Tank*. 3) Bushnell didn't create the VCS. It had been designed by Bob Brown and released in 1977 — after Warner took over. 4) Bushnell sold Atari to Warner (for \$28 million) because he wanted to expand the company and needed a quick injection of cash. 5) The Atari 800 suffered because people thought of it as an expensive game machine; not a serious computer. 6) Atari was sold to Jack Tramiel in 1984. 7) The 7800 was designed before Tramiel bought the company. Tramiel didn't even want Atari to release videogames. Only the overwhelming success of the NES forced Atari to release the new game machine in 1986. 8) Tramiel planned to release the Amiga. Unfortunately, an 11th hour deal between Amiga and Commodore caught him by surprise. After this, Tramiel purchased the operating system for the ST from Digital Research. 9) The Master System was Sega's 8-bit machine. You mean Genesis.

All this information can be found in my book, *Phoenix: The Fall & Rise of Home Videogames*. All in all, I still think you have the best magazine on the stands. Please keep up the usual high-quality work, and thank you.

Leonard Herman

Thank you for your keen observations, Leonard. The writer of the offending article has been placed in solitary confinement with just a Jaguar and *Fight for Life* to keep him company. That should teach him.

**A**fter reading the March issue of **NEXT Generation** I must tell you that in many ways it let me down a lot! Your interview with Tom Kalinske was sickening.

Obviously, you have no respect for the man. Howard Lincoln is a man who betrayed gamers everywhere and made a fool of himself by butt-kissing Senator Lieberman, but I bet you still have respect for the man (he's every Nintendo fan's hero). The interview was lousy, rude,

ignorant, disrespectful, and if I were Sega, I would never place an ad on your magazine again.

Allan Gamble

Don't be so naive. **NEXT Generation** has the utmost respect for Tom Kalinske. He's an extremely bright, talented, and shrewd individual who is more than up to the challenge of answering some tough questions. If you don't want your opinions challenged every now and again, we suggest you read a different magazine. Besides, not everyone shares your opinion...

**I** just finished reading your March issue and I'm impressed. Your interview with Tom Kalinske was great. Never have I read an interview where the interviewer asked questions that mattered. No punches were pulled and it was a great interview. If the next issue is as good I'll be hooked.

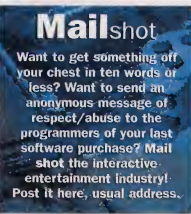
Shane Rilling

We'll try and keep up the standard *Shas*. Thanks for your support.

**A**ll I can say is that you guys dominate. Gutsy, fact-oriented reporting in an industry filled with hype. I thought you would cave in by the third issue and become a weak mouthpiece for publishers... and I'm happy to say I've been proved wrong. Thanks for restoring my faith in the interactive entertainment media.

Jesse McReynolds

Thanks, Jesse.



**Mailshot**

Want to get something off your chest in ten words or less? Want to send an anonymous message of respect/abuse to the programmers of your least software purchase? Mail shot the interactive entertainment industry! Post it here, usual address.

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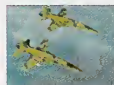
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